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ABSTRACT

Programs and policies at four-year majority white institutions with good minority retention rates are examined, and factors contributing to their success that are adaptable to other sites are identified. Identification of the institutions used in the study was based on an objective statistical procedure and expert nomination. The four institutions chosen were Boston College, California State University at Fresno, University of North Carolina at Greensboro, and Purdue University Minority Engineering Program. An introduction to the report provides a statement of the problem; review of the literature (student characteristics and behavior and environmental factors); and a summary of the study including descriptions of the two methods used to select the institutions and synthesis of results from methods one and two). Case studies focus on the following: Boston College (the institution, African American/Hispanic/Asian/Native American student programs, and conclusions); California State University (the institution, access and retention, special programs, support services, and conclusions); Purdue University (the institution, the Schools of Engineering Minority Engineering Program, and conclusions); and University of North Carolina (the institution, access and retention, and conclusions). Findings focus on: differences among institutions and programs; characteristics of successful retention efforts; a model for developing effective minority retention programs; and a broader perspective of minority retention. It is concluded that retention includes motivating students to aspire to higher education, preparing them for the rigors of a college career, assiting them to matriculate, helping them finance their education, and offering academic and personal support during their college years. Ninety-eight appendices provide details on the programs at each institution. Tables are included. Contains 56 references. (SM)

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RESEARCH REPORT

IMPROVING MINORITY RETENTION IN HIGHER EDUCATION: A SEARCH FOR EFFECTIVE INSTITUTIONAL PRACTICES

Beatriz C. Clewell
Myra S. Ficklen

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Educational Testing Service
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TABLE OF CONTENTS

Page

Abstract i

Introduction 1
  The Problem 1
  Review of the Literature 2
    Student Characteristics and Behavior 2
    Environmental Factors 5
  The Study 7
    Description of Method One 8
    Description of Method Two 10
    Synthesis of Results From Methods One and Two 11

Case Study Summaries 19
  Boston College 19
    The Institution 19
    AHANA Student Programs 19
    Conclusions 22
  California State University at Fresno 23
    The Institution 23
    Access and Retention 23
    Special Programs 24
    Other Special Programs 26
    Support Services at CSUF 27
    Conclusion 27
  Minority Engineering Programs, Purdue University 28
    The Institution 28
    The Schools of Engineering 28
    Minority Engineering Program (MEP) 29
    Conclusion 33
  University of North Carolina at Greensboro 34
    The Institution 34
    Access and Retention 34
    Conclusion 36

Findings 39
  Differences Among Institutions and Programs 39
  Characteristics of Successful Retention Efforts 46
  A Model for Developing Effective Minority Retention Programs.. 52
  Minority Retention: A Broader Perspective 54

References 56

Appendix
  Boston College
  California State University at Fresno
  Minority Engineering Programs, Purdue University
  University of North Carolina, Greensboro

Abstract

Attrition of minority students from postsecondary education represents a major obstacle to attainment of equal educational opportunity. Gains in admission rates of minority students that have been made over the past decade have been eroded by their higher attrition rate. From a policy perspective, the most important issue is not merely why students drop out, but what can be done to prevent withdrawal.

This study examined programs and policies at four four-year predominantly White institutions with good minority retention in an attempt to identify variables that enhance minority retention. The institutions studied were: Boston College, California State University-Fresno, University of North Carolina-Greensboro, and Purdue University. These schools varied in terms of institutional environment, including selectivity, size, and proportion of minorities on campus; rationale for developing minority retention efforts; grade level of students served by special programs; and scope and type of services. The differences we found across institutions demonstrate that retention efforts for minority students can be developed and carried out successfully in many different ways, at different types of institutions.

Although we found much diversity among the programs, we also found that there were certain common characteristics across programs--characteristics that appear to be elements of successful retention efforts. These characteristics are: the presence of a stated policy on minority enrollments; a high level of institutional commitment; a substantial degree of institutionalization of the program; comprehensiveness of services; dedicated staff; systematic collection of data, monitoring, and follow-up; strong faculty support; and non-stigmatization of participants.

From our study, we developed a general model that represents steps needed to formulate a retention program. The steps are: making a policy decision to enhance minority retention, conducting a needs assessment and developing a data base to examine minority enrollment patterns, implementing a program and monitoring and evaluating this program. This model emphasizes that retention efforts include all parts of the institution and constitute an ongoing process in which changes are made as needed.

We hope that other colleges and universities will view the programs described in this report as models from which to gain ideas for adaptation in their own settings.

IMPROVING MINORITY RETENTION IN HIGHER EDUCATION:
A SEARCH FOR EFFECTIVE INSTITUTIONAL PRACTICES

Introduction

The Problem

Attrition of minority students from postsecondary education represents a major obstacle to attainment of equal educational opportunity. Although there is great ambiguity in the literature regarding the actual attrition rate, research suggests that from 10-40 percent of all students who enter college will drop out before degree completion, but for minorities the proportion is substantially higher, particularly in predominantly White schools (Astin, 1975; Astin, 1982; Astin & Burciaga, 1982; Cross & Astin, 1981).[1] Although the effect of race on college attrition is not clear, most studies find disproportionally higher attrition rates and more reports of academic difficulty among minorities (Cross & Astin, 1981; Gosman, Dandridge, Nettles & Thoeny, 1983; Perry, 1981; Suen, 1983; Willie & McCord, 1972).[2]

Thus, the full impact of gains that have been made in enrolling of minorities in postsecondary education over the past decade have been eroded by their higher attrition rate. The result is a continuing discrepancy in the proportions of degree recipients between minorities and non-minorities.

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[1] For a comprehensive review of attrition studies see L. Ramist (1981).

[2] Two notable exceptions to these findings are: Hilton (1982) using the National Longitudinal Study and White and Brown (1980) comparing Black and White students at the University of Georgia. Both found no differences between Black and White students' attrition.

To close the gap in educational attainment between minority and nonminority students will therefore require more than enrollment gains among underrepresented groups; it will require a better understanding of why these students drop out and a concerted effort to prevent their withdrawal.

Improving minority retention is a major issue for colleges and universities. Policies established to enhance minority retention affect the individual students, the institution, and the broader concern of expanding equal educational opportunity. Minority retention is both a national concern and an issue for individual colleges and universities, for their actions can and do make a difference.

Review of the Literature

The following section provides a brief overview of retention studies. For our discussion of these studies we first describe studies that focus on student characteristics that appear to affect retention, and then studies that examine the effects of various institutional factors. The final section of this literature review summarizes research on programs to enhance retention and/or improve minority performance on campus.

Student Characteristics and Behavior

There is an abundance of literature that attempts to predict which students will drop out and explain why. Although there is disagreement about the relative importance of student characteristics associated with persistence, a great deal is known about which students are most likely to persist and which ones are at risk (cf. Astin, 1975; Cross & Astin, 1981; Tinto, 1975). Cross and Astin found that the most significant predictors of full-time persistence were students' past academic achievement as reflected by high school grades, SAT scores, college preparatory curriculum, and attendance at a four-year college. Other student characteristics such as race and socioeconomic status have also been associated with attrition rates. These variables (with the exception of type of college) are characteristics that students bring to the college with them and are therefore unchangeable by the institution.

Students drop out for many different reasons; some are alterable and others are not. Reasons include academic, personal and financial factors. Pantages and Creedon (1978) examined 100 studies and found the following reasons for withdrawal (in order of frequency): academic matters; financial difficulties; motivational problems; personal considerations; dissatisfaction with college; military service; and taking a full-time job.

Studies that focus on on-campus behavior have found that attitudinal factors, such as personal and career goals, commitment to the institution, study skills, developing coping strategies, and academic performance including major and first semester GPA are crucial factors associated with student performance and persistence in college (Abasto, 1982; Allen, 1981; Bean, 1980; Brigman & Stager, 1980; Dallam & Dawes,1981; Eddins, 1982; Newlon & Gaither, 1980).

Dropping out is a process affected by a student's academic and social integration into the institution (Tinto, 1975). Drawing upon this concept researchers have found such factors as high use of campus facilities, holding a job on campus and having informal contacts with teachers and students outside the classroom to be associated with persistence in college (Astin, 1975; Churchill & Iwai, 1981; Pascarella & Terenzini, 1979). In other words, students who are well integrated into the academic and social environment of the institution are more likely to persist to graduation. This finding is particularly important for minority students on majority campuses where they are less likely to fit in and more likely to feel alienated. Feelings of alienation among minority students may contribute to their withdrawal (Suen, 1983). Indeed, Braddock (1981), using the Tinto (1975) model, found that student characteristics accounted for only a small proportion of the variance in drop out propensity among Black students at predominantly White institutions, whereas low environmental congruence accounted for a greater proportion.

Researchers suggest that there are differences between minority and majority students that affect their performance on campus. Specifically, attitudes, aspirations and expectations with which students enter may vary among subgroups and affect academic performance (Minatoya & Sedlacek, 1983; Nettles et al., 1985; Shaffer, 1973). Comparing Hispanic students and White students, Gutierrez (1981) found differences in self-esteem and perceived treatment by teachers. Minority experience on a campus may contain certain factors that inhibit performance and/or lead to dropping out. These differences also mean that predictors of success for majority students may be inappropriate for minorities and therefore other nonconventional criteria should be applied (Dawkins & Dawkins, 1980; Sedlacek & Brooks, 1976). To improve prediction for minority students, Sedlacek and Webster (1978) have suggested the following noncognitive predictors of students' persistence: positive self-image; understanding of racism; realistic self-appraisal; ability to formulate long-range goals; availability of a support person; leadership experience; and community service.

Environmental Factors

Persistence varies by type of institution. School characteristics associated with high persistence include selectivity, size, residential status, having religious affiliation, and available financial aid (Astin, 1975; Cope, 1978; Cope & Hannah, 1975; Herndon, 1984; Tinto, 1975). Models to predict persistence in residential colleges do not work the same in urban commuter settings where students have less opportunity for the type of institutional integration found to be so important in residential campuses (Pascarella, Duby, & Iverson, 1983).

Although some school characteristics are fixed, others that reflect general climate on the campus can be changed. Of particular importance for minority students are issues surrounding race relations. A positive racial environment on a campus is associated with good academic performance and persistence (Allen, 1981; Bennett & Okinaka, 1984; Nettles et al., 1985). Feelings of alienation and not belonging on campus contribute to minority attrition (Bean & Hull, 1984; Burrell, 1979; Edmonds, 1984).

This brief overview of attrition research is not intended to be exhaustive but rather to indicate the complexity of the retention issue. Students drop out for many reasons and various types of colleges and universities appear to have different holding power. But more important from a policy standpoint is to understand not only the reasons students drop out but what can be done to retain them. Because the underlying reasons for withdrawal are multifaceted and complex, so are the solutions.

Programs to Increase Retention

Colleges and universities have tried a variety of programs to improve minority retention, with varying results. Some researchers maintain that special programs that provide academic and financial assistance have little impact on attrition of Black students (Francisco, 1983; Smith, 1980); other researchers suggest that special programs can be effective (Miller, 1977; Rayburn & Hayes, 1975; Trevino & Wise, 1980; Zanoni, 1980). Although the specific activities of retention programs vary, the most effective programs seek to integrate the individual into the mainstream of academic life (Tinto, 1982). Such programs often begin with recruitment efforts and/or outreach into the community and include all aspects of the institution--recruitment, admissions, academic advising, and financial aid (Anderson, 1978; Beal & Noel, 1979; Crockett, 1978; Gamson, 1978; Ott, 1978).

Beal and Noel (1979), in a comprehensive survey of retention programs, found that retention efforts involved admission and recruiting; advising; counseling; early warning and prediction; exit interviews; extracurricular activities; faculty, staff and curricular development; financial aid; housing; learning and academic support; orientation; and policy changes in such areas as grading and withdrawal. Other efforts that institutions have tried include paid work experiences for students, half-way houses for students living at home, increasing the number of minority staff where there are large numbers of minority students, use of peer tutors, and special recruitment and retention projects. An important institutional policy change for improving retention is making retention a top priority and committing all aspects of the institution toward achieving retention goals.

In a study of 13 institutions with substantial increases in Black enrollments during the 1970's, Gamson (1978) found a variety of efforts that improved retention. Such efforts included a formal recruitment program, use of special admissions criteria, provision of financial aid, and development of support services. She also found that leadership and faculty support were key elements in successful retention efforts.

Studies also suggest that how the program is implemented is as important as its content (Lenning, Sauer & Beal, 1980); therefore such factors as attitudes and interactions of students with faculty and staff are important considerations in examining programs.

Minority retention efforts are aimed at increasing students' self-confidence and helping them to develop clearer goals, increasing their integration into the institution, improving their academic performance, and improving the ability of faculty and staff to meet individual student needs. This means that in developing programs for minorities the special needs of minority students must be addressed.

The Study

The purpose of this study was to examine programs and policies at four-year majority White institutions with good minority retention rates and to identify the factors that contribute to their success and that are adaptable to other sites. Although the study was to some extent exploratory in nature to determine if such variables could be isolated and identified within complex institutional environments, our search was enhanced by the research literature on retention programs. We examined the aforementioned retention strategies, paying particular attention to the implementation of the activities.

The first step, and a problematic one, was to identify the institutions to study. We used two methods, one based on an objective statistical procedure and the other based on expert nomination.

Description of Method One

The source of data on which the Method One selection was based was Round Three of the Summary Reporting Service of the College Board for the successive years 1981 and 1982.[1] Unfortunately, the schools that are represented are self-selected, and therefore it is difficult to interpret the units as a probability sample from some fixed target population. Nevertheless, this provided us with a list of colleges and universities from all regions of the country on which we had information on student characteristics and retention rates through the freshman year. The measure of persistence is the number of students that are still in school at the end of the first year. Thus, there is no indication of whether those same students returned to the institution after their first summer break, and therefore persistence is probably overstated. Assuming, however, that the bias is constant across institutions, we can make comparisons and identify institutions that deviate from the norm.

We carried out the analyses separately for each of four minority groups: Blacks, mainland Puerto Ricans, Mexican Americans, and American Indians. For this report we have focused on Blacks, mainland Puerto Ricans, and Mexican Americans. We excluded military institutions and institutions in which there were fewer than four of the relevant minority group in the freshman class and we limited our analysis to majority White institutions. For Blacks, there were 134 institutions included in the 1981 data and 209 in the 1982 data. Of the institutions included in 1981, 97 were present the following year. For Puerto Ricans, there were 63 institutions included in 1981 and 93 in 1982. Thirty-six of the 1981 institutions were included in 1982. For the Mexican American sample there were 41 institutions included in 1981 and 62 included in 1982. Thirty-two of the 1981 institutions were included in the second year.

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[1] Round Three refers to a level of summary tape report provided to colleges in which basic student descriptive questionnaire data are merged with data on student performance and persistence through the freshman year.

The first step in the analysis was to pass through the Round Three file consisting of student records and compute averages and other statistics of interest for each minority group, including Whites for comparison in each college or university. The result of this procedure was a file for each minority group of school records containing measures on a large number of variables for each school in which that group was represented.

The general analytical approach was to develop a linear regression model relating the logit of the percentages of minority students persisting in a school to a set of characteristics of the students--with the student characteristics such as performance on tests, socioeconomic status, attitudinal measures, etc. considered to be variables over which the school has no control after admission. Thus a school for which the actual value of persistence is much greater or less than that predicted by the regression model could be considered to be remarkable, and that phenomenon would suggest that there is some process taking place within the particular school that either enhances minority persistence or works to its detriment, depending upon whether the residual from the regression is either positive or negative. The objective of this procedure was to be able to select a limited number of institutions identified as "outliers" in this analysis for further study to determine why they deviate from the norm. For a full description of the analytical approach used, see Ficklen, M. S. and

King, B. F., Minority Retention Phase I, Princeton, NJ, Educational Testing Service, 1984.

From this analysis we identified "outliers", both positive and negative. We then developed a smaller list to consider for further investigation. Our criteria for inclusion on the smaller list were:

- at least 14 students in the relevant minority group
- a standardized residual of at least 1.5 if included for one year, and if included for both years, a standardized residual of 1.5 or greater in one year and 1.0 or greater in the other.

The resulting list included nine institutions with high persistence for Blacks, six institutions for Puerto Ricans and four for Mexican Americans. These institutions were combined with institutions selected according to Method Two to produce a list of 25 institutions.

Description of Method Two

Because of the limitations in the data base used for Method One, an alternative method was also used to identify schools with good minority retention practices. This method consisted of eliciting nominations from experts in the area of minority retention. For a complete description of the procedures used, see Clewell, B.C., Identification of Institutions with Good Minority Retention Practices: A Feasibility Study, Princeton, NJ, Educational Testing Service, 1984.

Five researchers, chosen because of their reputation as experts in minority retention, were asked to nominate five institutions each that, in their opinion, had good minority retention practices. They were also asked to give reasons for each nomination. A list of 24 institutions was compiled (one institution was nominated by two members of the panel), and was circulated to the panel with accompanying reasons for nomination. Panel members were asked to agree or disagree with the nominations.

Once the panel had voted, a final list was made up of those schools that received a majority of "votes"; that is, a majority of the panel (three out of five) had agreed that they had exemplary minority retention practicies. In cases where the expert indicated that he/she was not familiar with the practices or programs at the institution, the "I don't know" reply was counted as a "disagree" vote. The final list, therefore, was based on a clear "agree" vote of at least three out of five members of the panel.

Limitations of funding and time precluded a larger panel and additional rounds to achieve consensus.

Synthesis of Results From Methods One and Two

We created a list of institutions by combining the results of Methods One and Two, listing the institutions with the information available on each one. Those identified through the SRS analysis contained information on the relevant ethnic group for which persistence was high, the freshman year persistence rate, and a comparative measure of persistence when controlling for student characteristics. We did not have information on programs for those institutions. Conversely, institutions identified through the nomination process contained information on programs, but did not contain measures of persistence. There were only four institutions nominated that were included in the SRS list of institutions. One of these was identified as an outlier and was thus placed at the top of the list of institutions to be screened. The other three did not show up as outliers in our analysis, and were therefore ranked at the bottom of our list. We also listed

Carnegie Classifications, control, and regions. From this list, we selected ten institutions, balancing all the relvant factors known to get a diverse group of institutions. We then screened these institutions by telephone using the following criteria:

- high minority persistence
- existence of at least one special program to improve minority retention
- data available on program participants
- data available on persistence rates
- agreement to participate

Through telephone screening of the ten institutions, we were able to select four that met our criteria and offered diversity in terms of institutional types (see Table 1).

In choosing the final four institutions we considered the following:

- representation of public, private, large, and small institutions
- representation of institutions with high retention rates for Black and Hispanic students
- representation of different regions of the country

The four institutions selected represent a mix of three public and one private, religiously-affiliated institution. We felt this combination to be appropriate since a greater proportion of minority students attend public colleges and universities than attend private institutions. The institutions are geographically diverse, located in the West, Midwest, Northeast and South.

Because of our limited resources, we could only screen ten institutions and were able to select only four for study. Our final choice of four is not intended to be interpreted as a representative sample. The procedures

Table 1

Rank Order of Top Ten Institutions to Screen For Further Study

Institution	Nomination (Method 2)	SRS Analysis (Method 1)	High Freshman Year Persist.	Ethnic Group	Geographic Region	Has a Program	Control	Carnegie Classification
A	X	X	Yes	Black	MW	Yes	PUB	a
B		X	Yes	Mex.Am.	W	*	PRV	a
C		X	Yes	Black	SE	*	PRV	e
D	X		*	*	NW	Yes	PUB	a
E	X		*	Black	SE	Yes	PUB	d
F	X		*	*	NE	Yes	PRV	b
G	X		*	*	MW	Yes	PUB	d
H	X		*	*	MW	Yes	PUB	b
I		X	Yes	Bl/MA	W	*	PUB	e
J		X	Yes	P.R.	NE	*	PRV	e

* Don't know

Carnegie Classifications:		
	a	Research University I
	b	Research University II
	c	Doctoral Granting University I
	d	Doctoral Granting University II
	e	Comprehensive University and College I
	f	Comprehensive University and College II
	g	Liberal Arts College I
	h	Liberal Arts College II

used were only a mechanism to help us select four schools that had successful programs. We know that there are many other institutions with excellent programs that are not represented among our screening list or our final selection. Nevertheless, we believe that the knowledge gained from studying the four schools selected will provide a useful source of information about programs to enhance minority retention and serve as a basis for further study.

We conducted a case study of each institution. In addition to the three-day site visits at each institution by project staff, an outside consultant with expertise in minority retention and familiarity with the institution provided contextual analysis for each school. The contributions of the consultants have been incorporated into the case studies. The consultants for each study are:

Boston College--James E. Blackwell, Professor of Sociology, University of Massachusetts, Boston, Massachusetts

California State University-Fresno--John A. Bilorusky, Director, Western Institute for Social Research, Berkeley, California

University of North Carolina, Greensboro--Peggy A. Richmond, Education Consultant, Research and Evaluation Association, Chapel Hill, North Carolina

Purdue University--William Sedlacek, Associate Director, Counseling Center, Associate Professor of Education, University of Maryland, College Park, Maryland.

The following report places minority retention in an institutional context and focuses on programs and policies that address the issue from an institutional perspective. Through examination of programs, we have designed a model for an ideal program that may be adaptable to other settings. Establishing a program requires commitment, planning and coordination throughout the institution. Although development of programs is an iterative process, there are discrete steps involved. The initial steps include a policy decision to address the issue, a needs assessment and development of a data base. The needs assessment forms the basis for a statement of policy and development of a program consistent with that policy. Program implementation, monitoring and evaluation feed back into the needs assessment so that changes can be made and progress monitored. It is through this institution-wide process and concerted effort that change occurs. Because the schools and programs differ, each case study varies. Our studies cover both special programs and institution-wide efforts. Our focus at each site was the same: to describe programs and policies that enhance minority enrollment and graduation.

The following section presents summaries of the four case studies. The complete case studies are included in the appendix.

CASE STUDY SUMMARIES

Boston College

The Institution

Boston College is a private Jesuit Institution, located in Chestnut Hill, Massachusetts, a suburb of Boston. Its academic programs include undergraduate and graduate colleges of arts and sciences and schools in law, social work, education, management, nursing and theology. The current undergraduate enrollment of Boston College is approximately 8,000 with another 6,000 enrolled in professional and graduate schools.

With a tuition of approximately $8,000 per year, Boston College caters to the middle class. Most students are White, middle class and Catholic. Blacks comprise only about three percent of undergraduate enrollments, Hispanics four percent, and other minorities four percent. Boston College is selective in admissions. About 61 percent of entering freshmen have verbal SAT scores above 500 and 78 percent have math scores above 500. The admissions office is making a strong effort to attract more Black students and provide additional financial aid, but Boston College must compete with more prestigious colleges for Black students, thus making recruitment of Blacks difficult.

AHANA Student Programs

Activities

The Office of AHANA (African American, Hispanic, Asian, and Native American) Student Programs serves as a center for academic and personal support services for students from ethnic/racial groups subsumed under the acronym AHANA (African American, Hispanic, Asian, and Native American). The Office has existed since 1968, but has experienced many changes over its 17-year history. Since 1978 several retention programs have existed in a form similar to the current one. The office operates a summer transition program, Options Through Education (OTE), for prematriculating freshmen who are selected as high risk minority students with potential for success at Boston College. This program has been very successful in improving the retention rate of minority students. The overall retention rate of OTE students is 81.2 percent.

The Options Through Education Program is a six-week summer program to improve basic academic skills in math and English and provide an orientation to college life. In addition to two hours of English and two hours of math each day, students take courses in biology, chemistry, intercultural awareness, oral communications and human sexuality. Students are placed in English and math according to level of ability, and those taking upper level courses may receive credit, thereby allowing them to take a lighter load of courses during their freshman year.

OTE students receive monitoring and advising throughout their four years at Boston College. Staff make a great effort to prevent students from falling into academic difficulty. Tutors, who are paid by the AHANA Office, are available to help students. Additionally, OTE students may make up academic deficiencies during the summer on a tuition-free basis. Students must meet with advisors monthly, and as an additonal check on performance, the AHANA Office requests progress reports from teachers asking about student performance. The AHANA House provides personal, financial, and career counseling as well.

Staff

The AHANA Student Programs are part of the Office of Student Affairs. The staff consists of the Director, Assistant Director, and Administrative Assistant. Three graduate students, assisted by six administrative aids, who are undergraduates at Boston College, serve as advisors. For the summer program, AHANA employs two full-time coordinators, four math instructors and five English instructors, four of whom are graduate students.

Participants

All minority students may take advantage of the AHANA House and many of its services. The OTE program, however, is for 40-50 students in each class who are identified when they apply to Boston College as having potential, but who otherwise do not meet the normal admissions criteria for entrance into Boston College. Usually such students have strong high school grades and good letters of recommendation, have demonstrated leadership ability and interest in community service, but have SAT scores that are lower than those of the typical Boston College student. Many of the OTE students come from high schools that are not as strong as those of the average Boston College student. Students accepted into the OTE program receive full funding for their four years at Boston College. The OTE student must sign a contractual agreement in which he/she agrees to specific conditions for the summer program such as: attending all classes, participating in study halls, and seeking help when experiencing difficulty in courses. The student also agrees that during the academic year he/she will meet regularly with a graduate assistant, seek tutorial assistance when needed and attend all meetings as prescribed by the Office of AHANA Progams.

Evaluation

There has been no formal evaluation of the program, but the AHANA Office keeps careful records on students and reports the retention and graduation rates of each class of OTE students. Staff also keep records of office visits and frequency of tutorial assistance.

Conclusion

The AHANA Student Programs are viewed as a valuable resource for Boston College and as a successful endeavor to increase minority retention. The OTE program provides financial, academic and personal support to students who are educationally disadvantaged. The program has been very successful and enjoys widespread support throughout the university. Additionally the institution is planning to increase recruitment efforts and provide more financial aid for Blacks. Attracting a more diversified student body and faculty is seen as an important part of the mission of Boston College, and the Office of AHANA Student Programs plays a vital role in achieving this institutional goal.

California State University at Fresno

The Institution

The California State University at Fresno is the sixth oldest institution in the California State University 19-member system. Founded as a junior college in 1910, the institution experienced rapid physical and academic expansion after World War II. From an initial enrollment of 150, CSUF has grown to an enrollment of more than 16,000.

As the major public university in the San Joaquin Valley, the institution serves a large geographical area with a rapidly growing population, a very large portion of which is Mexican American. It is estimated that by the year 2000 this area will be more than 50 percent Hispanic. It is already 30-35 percent Hispanic (mostly Mexican American) and four percent Black. CSUF considers it part of its mission, as a publicly supported institution, to serve students "from groups that historically have not participated in university education, whether because of age, socioeconomic background, physical ability or geographical location."

Access and Retention

The issue of the access and retention of minority students is inseparable from the university's sense of mission. Currently, the Mexican American enrollment is 14 percent, while the Black enrollment is four percent. The university would like to see the enrollment more closely reflect the ethnic composition of the community it serves which is four percent Black, 30-35 percent Hispanic and approximately 60 percent White. To accomplish this, it has undertaken a number of outreach activities.

Systemwide, CSUF ranks second in retaining freshmen. Its freshman first-year retention rate is 81.5 percent compared to the systemwide average of 76.2 percent. The majority of CSUF's minority students enroll as transfers from community colleges. A comparison of transfer retention rates (based on retention two years after matriculation) across ethnic groups shows Hispanic transfer students as having the highest retention (74.7%), followed by Asians (74.3%), Whites (73.1%), and Blacks (58.7%). The university has instituted a number of efforts to increase minority retention. These take the form of tutorials, counseling, and special courses.

Special Programs

The two main special programs which focus on access and retention are CORE-SAA and EOP. The first serves regularly admitted students, while the second focuses on "special admits."

CORE-SAA

CSUF has been a leader of the CSU system in developing the CORE-SAA (College Outreach Retention and Enhancement-Student Affirmative Action) program. Many have credited this program with being on the "cutting edge" of new strategies and techniques for recruiting and retaining minority students. Whereas the EOP has primarily worked with and assisted special admissions students, there had never really been any concerted efforts to recruit and retain the regularly admissible minority student. CORE-SAA fills this gap. The program has three main components: An Outreach Component, a Retention Component, and an Enhancement Component.

Outreach Component. The major goal of this component is the recruitment of minority students. Main program elements are: recruiting, counseling, academic advising, campus tours, orientation, and early career development outreach (career awareness). The four staff members, together with five student peer counselors (part-time), work with community colleges and high schools in the university's service area to identify promising students, give presentations about CSUF, and counsel prospective students individually. They also provide other services such as tutoring and study skills instruction as well as assisting students to apply to CSUF.

The Retention Component. The major goal of this component is to increase the successful degree completion of historically underrepresented students. Its three main activities are: Peer Counseling, where graduate students counsel freshmen, transfers, and students on probation; the Faculty Referral Program whereby students are referred by faculty for tutoral services; and the Special Retention Advising Program that provides courses for credit to students on academic probation. The staff of two retention specialists, two peer counselors (half-time), and two tutors teach classes, conduct study skills workshops, tutor, and counsel students. Many of the participants in this component are students who have been recruited through the Outreach Component.

The Educational Enhancement Component. This component attempts to increase faculty awareness of the needs of minority and non-traditional students. It has sponsored Undergraduate Academic Advising Conferences including a workshop on advising minority students, a Black staff-student mentorship program, and a Chicano Student Leadership Program.

The Educational Opportunity Program (EOP)

The EOP provides the services for "special admits" that CORE-SAA does for "regular admits." Most campuses in the system have had EOP's since

1970. The major goals of EOP are to provide access to higher education for minority, low-income students, and to provide support services throughout their undergraduate education to graduation. Support services include career counseling, personal counseling, and tutoring provided either by EOP or by other ~~special~~ services programs on campus.

Participants must meet certain criteria in order to enroll in the program. They must come from a low-income household; their parents must have less than a baccalaureate degree; they must have a high school GPA of at least 2.0; they must be residents of the state of California; and they must have completed eight semesters of college preparatory English and four semesters of college preparatory math. Other factors taken into account in the selection of participants are test scores, motivation, and potential to succeed in college. With an enrollment of 1,050 students, EOP has one sixteenth of all CSUF students as well as an even larger proportion of the minority enrollment.

The EOP staff consists of a Director; an Assistant Director; an Academic Service Coordinator who oversees tutorials, learning skills and work with students on probation; an assistant to the Academic Service Coordinator; five counselors who do personal counseling and oversee different functions of the program; three full-time clerical staff; and 40 to 50 students who work part-time in various capacities--from peer adviser to data entry.

Other Special Programs

In addition to the two programs described above, CSUF has a number of other programs on campus that work to increase the access and retention of minority students. Those that focus on students at the undergraduate level include the College Assistance Migrant Program (CAMP), the Health Careers Opportunity Program (HCOP), and the Minority Engineering Program. These are described in detail in the CSUF case study in the appendix.

Support Services at CSUF

Interviews with students revealed their feeling that the special programs and support services at CSUF play a central role in aiding minority students on campus. The fact that these services are visible, varied, and effective seems to confirm to students that these programs are a legitimate part of the university. Students do not feel defensive or insecure about having used special programs; they are, rather, proud that they are making use of valuable resources.

Conclusion

The access and retention activities of the California State University at Fresno represent a concerted effort involving all levels of the university. A unique feature of this effort is the extent of coordination among the various programs and administrative units responsible for these activities. The strong leadership of the President and top administrators, the dedication and concern of the directors and staffs of the programs, and the cooperation of the faculty combine to produce a highly successful university-wide attempt to enroll and retain minority undergraduate students.

Minority Engineering Programs

Purdue University

The Institution

Purdue University is one of the 25 largest universities in the nation. It has a systemwide enrollment of 46,964 at its various campuses in Indiana, with the West Lafayette campus enrolling 31,457 students. The university was established in 1869 as a land-grant institution specializing in the agricultural and mechanical arts. Its traditional academic strengths have been in technology and applied science.

Situated in a state with fairly low Black representation--about eight percent--and an Hispanic population of about two percent, Purdue has had some difficulty attracting minority students. The undergraduate minority enrollment is about four percent, and most of these students are Black. The Admissions Office has made an effort to recruit minority students, concentrating on areas with large minority populations such as Cleveland, Detroit, northern New Jersey and New York City. The Admissions Office works closely with the Minorities in Engineering Program in their recruitment activities.

The Schools of Engineering

With an enrollment of 6,000 undergraduates, the Schools of Engineering at Purdue represent one of the largest components of that institution. These schools comprise one of the largest engineering collegs in the country, as well as one of the most distinguished. The Department of Freshman Engineering is the entry point for all freshmen entering engineering programs and is responsible for initial advising and counseling as well as for first-year classes. The Department of Freshman Engineering administers the Minority Engineering Program which is the subject of this case study.

Minority Recruitment and Retention in the Schools of Engineering

Recruitment and retention of minority students is a priority of the Schools of Engineering at Purdue. An affirmative action goal of 16 percent enrollment of underrepresented minority students (Blacks, Hispanics and American Indians) was set in 1984.

Although Purdue's enrollment of minority undergraduates in engineering (5.1 percent) is somewhat below the national figure of 8.4 percent, Black engineering students at Purdue persist at a slightly higher rate than nationally (48% vs 45%). Hispanic student retention, on the other hand, is slightly lower than the national average for Hispanics in engineering programs (57% vs 60%). The Schools of Engineering have the highest enrollment of minority students of any school at Purdue--5.2 percent of the total engineering undergraduate enrollment and 6.5 percent of the beginning freshman class. This relatively large minority enrollment as well as a fairly high retention rate for minority students is due primarily to the efforts of the Minority Engineering Program.

Minority Engineering Program (MEP)

The Minority Engineering Program (MEP) at Purdue University represents a unique blend of components that combine several approaches to motivating, recruiting, enrolling, retaining, and graduating minority engineers at that institution. It is located in the Department of Freshman Engineering in the Schools of Engineering. Established eleven years ago, the program's goal is to provide a comprehensive effort to increase minority enrollment by 25 percent each year. Funds from several private industries are used to support programming activities and scholarships, while staffing and facilities are funded by institutional funds allocated to the Freshman Engineering Department.

Programs that operate under MEP can be classified into two types--Pre-College and College-Level activities. The former include efforts to identify, motivate, and enroll high school students who demonstrate high potential and who indicate mathematics, science and engineering as interests. The latter focus on the retention of minority students already enrolled at Purdue.

Pre-College Activities

Summer Workshops for High School Students. MEP sponsors summer workshops for minority high school students to familiarize them with the Purdue campus and motivate them to consider careers in engineering. Different workshops are aimed at students of different levels and abilities--seventh and eighth grades, freshmen and sophomores, and juniors. The workshops provide the opportunity for students to participate in engineering projects, tour engineering laboratories and facilities, discuss various engineering topics with other engineering students and professional role models, and attend presentations by admissions officers on requirements for technical studies at the college level. The workships vary in length from one to two weeks.

Target Cities Luncheon Program. These are special luncheon programs for academically talented high school juniors and seniors as well as their teachers and counselors in selected cities throughout the midwest. Presentations focus on engineering programs and opportunities available at Purdue.

Recruitment Activities. Although the summer workshops described above are, to some extent, efforts to recruit minority engineering students for Purdue, MEP conducts activities that focus more narrowly on recruitment. One of these is a two-day effort aimed at talented juniors and seniors. Another is a two-and-a-half day program designed to encourage minority students who have been admitted to Purdue to enroll in the freshman engineering program. Students are encouraged to attend this activity with their parents.

Other Activities. MEP conducts teacher/counselor workshops for junior and senior high school teachers and counselors to disseminate information regarding activities and developments within engineering. Minority engineering students at Purdue offer their services (such as sharing information regarding their own experiences at the institution) to prospective minority engineering students. MEP provides industry-sponsored grants of from $1,000 to more than $3,000 to attract highly qualified minority engineering students. PREP, a six-week intensive preparatory program for entering Engineering freshmen, was initiated this summer (1985). An impressive array of recruitment materials, engineering career literature, and information regarding financial aid and admissions has been developed and disseminated through the MEP.

College-Level Retention Activities

The MEP staff maintains contact with minority engineering students once they are enrolled at Purdue by providing the following support services: individual and career guidance sessions; orientation and retention seminars; incentives for academic performance through the Continuing Student Awards program; employment of students in MEP; information on employment and scholarship opportunities from the MEP newsletter; and a positive working relationship with the Society of Black Engineers.

Staff

The staff of MEP consists of one full-time director and one assistant director who is half-time. There is one full-time secretary and one part-time secretary, as well as two undergraduate student helpers and four undergraduate student tutors.

Participants

Students currently enrolled at Purdue who participate in the college-level activities feel that the program has helped to ease the transition from high school to college. They mentioned the program's usefulness in introducing them to available resources, providing services, bringing them closer to other minority students in engineering, and providing moral support as well as academic support. All students praised the dedication of the staff, particularly the Director, and considered this to be a very important ingredient in the program's success. Currently enrolled students who had been participants in the pre-college programs credited MEP with influencing their decision to choose an engineering career and to enroll at Purdue.

Evaluation

Most of the programs described above have been evaluated by the Office of Education Research and Information Systems in the Department of Freshman Engineering. Evaluations have been formative as well as summative, and are conducted on a yearly basis. Results of evaluations of the individual programs are given in the complete case study in the appendix.

Conclusion

The Minority Engineering Program at Purdue University represents a commitment on the part of the Schools of Engineering as well as the University to increase minority recruitment and retention in the engineering programs. It is probably the most focused and successful effort of its type at Purdue and enjoys the support of the institution, the commitment of a dedicated staff, and the assistance of the institutional research office of the Freshman Engineering Department. There has also been a substantial investment on the part of industry. The difficulty of this undertaking in a state with a very low minority population and at an institution with low minority enrollment is considerable. The success of MEP under such circumstances is encouraging, if not remarkable.

The University of North Carolina, Greensboro

The Institution

The University of North Carolina, at Greensboro is one of 16 institutions in the University of North Carolina System. UNC-G has a long-standing commitment to the liberal arts in undergraduate education, along with undergraduate and graduate preparation in many professional fields of study.

UNC-G has an enrollment of over 10,000 students of which over one-quarter are graduate students. Blacks comprise about ten percent of the students and other minorities about three percent. The average combined SAT score of incoming freshmen is 940 and over half of the freshmen rank in the top quarter of their high school class. About 88 percent of the students are state residents.

Since 1973 the University of North Carolina System has been under court order to desegregate all of its constituent institutions. Prior to the court order, UNC-G had the best minority retention rate of any predominantly White institution in the system. Following the court order, there was increased competition within the system for minority students, and UNC-G has had to increase its efforts to attract and retain minority students.

Access and Retention

Many factors at UNC-G appear to contribute to the high minority retention rate. These factors include efforts within regular university services--Admissions, Student Aid, Student Affairs, Academic Advising, and Academic Departments. In addition to university-wide policies to improve minority retention, there are two special projects--Special Services and a new Student Retention Project--that are designed specifically to improve retention and the academic performance of students. Both projects are under the auspices of Academic Affairs.

Special Services Program

The Special Services Program is a federally-funded and university-supported educational program begun in 1970. Students who do not meet regular admissions criteria may be admitted to UNC-G through the Special Services Program. To qualify students must be first generation college students, economically and educationally disadvantaged and/or physically handicapped. Approximately 120 students are admitted each year under these criteria, and about 70-80 percent of these participate in the program. About 80 percent of Special Services students are Black.

The program provides a variety of academic and support services. These include academic advising, mathematics instruction, reading and study skills, writing instruction, tutoring and counseling. Prior to registering for classes, students are given assessments in writing and math and a program of study is developed. Most instruction is on an individual basis.

Staff include a full-time director, a counselor, a reading/study skills specialist, a mathematics specialist, a secretary and a tutor coordinator. Upperclassmen or graduate students provide tutoring. Students who participate in the Special Services program have higher retention rates than those who do not participate. The one year retention rates for Special Services students in good standing is 87 percent vs. 39 percent for those students who do not participate.

Student Retention Project

The Student Retention Project was begun in 1984 as an effort to improve graduation rates of minority students. The project is coordinated by a member of the Admissions Office staff in cooperation with the Academic Advising Office.

The principal activities of the Student Retention Project are early identification of academic difficulties, development of special study skills, and enhancement of academic advising. The monitoring of students' academic progress is designed to prevent students from getting into academic difficulty. In addition, the project holds a series of workshops on time management, test-taking, reading and note-taking.

Participants for the initial effort were 233 minority students and 100 non-minority students who were not eligible for Special Services. The goal is to open up the project to all undergraduate students.

The coordinator of the project is an assistant director of admissions. Two student volunteers assist her. A steering committee consisting of faculty and the Dean of Academic Advising provide overall direction. Fourteen student assistants serve as peer counselors, and 95 faculty members provide the service to students.

Although it is too early to look at the impact of the program on student graduation, the project has made faculty more aware of the importance of advising students and monitoring student progress.

Conclusion

UNC-G exemplifies a university that is making an institution-wide effort to increase minority retention. Through regular university services and two special projects--Special Services and the Student Retention Project--UNC-G has been successful in enhancing minority retention.

FINDINGS

Findings

The institutions presented in the case studies represent schools with a wide range of characteristics as well as differing approaches to enhancing the retention of their minority students. In looking across institutions and programs, however, certain similarities also emerge. The following two sections summarize the characteristics of the programs, highlighting both differences and similarities.

Differences Among Institutions and Programs

The programs at the four institutions all have a common purpose: to enhance minority retention. While there are many similarities in these programs, there are also differences in the services offered. The major areas of variation that influence program effectiveness are institutional environment; rationale for minority retention efforts; locus of control; grade levels of students served; and scope and types of services. These differences are important to the successful development and implementation of programs, since minority retention efforts must be tailored to meet the special needs of students and fit into the overall institutional environment.

Institutional Environment

The institutions we visited vary in selectivity, size, control and location, factors that are fixed but affect the type of student served and the nature of recruitment efforts. Boston College is a very selective, Jesuit institution, with an enrollment of about 8,000 undergraduates. It is located in a predominantly White middle-class suburb of Boston, a city where Blacks comprise approximately 22 percent of the population. Because of its location, selectivity, and cost, Boston College must make special efforts to attract Black students and assist them in meeting costs and, where necessary, improve their academic skills. It must provide assistance while maintaining high academic standards. Recruitment takes place primarily in the inner-city areas of Boston, New York, New Jersey, Connecticut, and Washington, D.C. Although the school is relatively small (compared to Purdue), it is still large enough that students, particularly Black students who represent only a small proportion of the student body, need assistance in negotiating the university.

Purdue is a very large (over 30,000 students) public institution that is relatively selective, particularly in its Schools of Engineering. It is located in a small town in the midwest, an area of low minority population. The school is isolated and not near a major metropolitan area. Purdue's MEP program has made special efforts to attract Black students, aiming these efforts on junior high and high school students in nearby states, particularly in cities with larger concentrations of minorities.

The University of North Carolina at Greensboro (UNC-G) is a medium-sized public institution. Its relatively small size makes the institution seem more open and accessible for students, while its entrance requirements are less selective than Purdue or Boston College. Because it is in an area with a relatively large population of Blacks, its recruitment efforts are targeted for the most part in-state. Its relatively low cost makes the UNC-G attractive to Black students.

Fresno State University is a large multi-purpose state university with a mission to serve students from the San Joaquin Valley, which has a high proportion of Mexican Americans. Fresno admits students who graduate in the top third of their high school class or who transfer from community colleges. Fresno has made special efforts to recruit Mexican Americans who might not have considered going to college and has developed recruitment and support programs to serve them.

The four institutions vary in the proportion of minorities on campus, a factor that affects the general climate of the institution. The University of North Carolina at Greensboro and Fresno State have student bodies with a critical mass of minorities on campus reflecting the population of the area. In addition, Fresno and UNC-G have interracial staffs. These factors help in recruiting other minority students, since they see that the campus is receptive to minorities.

Boston College and Purdue University have only a small Black presence on campus. They are located in areas that are predominantly White. This creates a different environment for minorities and requires these institutions to make special efforts to attract and retain minorities. Boston College, however, has been able to attract a relatively large group of Hispanic students with no special efforts due to the Jesuit ties to the Hispanic community.

Rationale for Minority Retention Efforts

The rationale underlying the decision to increase minority presence on campus and improve retention of minorities differs across the institutions. During the 1960's, the administration and Board of Trustees of Boston College determined that they had a responsibility to provide education to minorities, especially Black students. They developed a program to identify talented Black students and to increase Black enrollments. The decision at Purdue University's Schools of Engineering was also an internal one. Because of the low proportion of minorities in the state and in the engineering profession, Purdue developed outreach programs starting in the 7th and 8th grades and going through high school to increase interest in and preparation for entering an engineering program. For both Fresno State University and the University of North Carolina at Greensboro, practical as well as philosophical concerns led to the decision to enhance minority access and retention. Fresno has a mission to serve the San Joaquin Valley, an area which is heavily populated by Mexican Americans. By the year 2000, the Mexican American population is projected to increase to 50 percent. Therefore, to serve this population and to plan for future enrollments of increasing numbers of Mexican Americans, Fresno developed programs to meet the needs of these students. UNC-G as a state institution has a mission to serve the population of the state, which consists of large numbers of Blacks. With additional pressures of a court order for the system to desegregate, and increased competition within the system for minority students, UNC-G must make strong efforts to recruit and retain Black students.

Locus of Control

Where programs exist in the institution appears to be related to the organization of the school, the history of the program, the individuals involved and the services provided. At Boston College the AHANA Student Programs was developed out of the Office of Minority Affairs which was within the Office of Student Affairs. It has existed within that office since its founding, although the main focus is on academic performance of students. The programs at Fresno State have a more complex structure, but one that is appropriate to the institution. Organizationally the programs are located under the Office of Student Affairs, but the parts of programs that deal with academics are part of academic affairs. Because the programs at Purdue focus on engineering students, they are located within the Schools of Engineering. AT UNC-G, the Assistant Vice Chancellor for Academic Affairs oversees the overall retention effort and the two special programs for improving retention. Both programs focus on improving academic performance of students.

Grade Levels of Students Served

The programs we visited serve students at different grade levels. They begin and end at different places along the educational pipeline.

Purdue University's programs serve students beginning in junior high school and continue through freshman year of college. These efforts are designed to increase motivation and interest in engineering and to improve academic performance. After freshman year the responsibility for support services is transferred to the various engineering schools, although the program does provide some services beyond the freshman level.

Fresno State's programs are also very comprehensive. They begin with outreach into the junior high schools, and encourage these students to enter college through counseling, motivation and academic support programs. There are also programs for high school students. Academic and personal support programs for matriculating students begin with orientation and continue through undergraduate and even graduate school.

The University of North Carolina at Greensboro begins recruitment efforts at the high school level, but the focus of its programs is on students who are matriculating at UNC-G. For Special Services students, these activities begin with an orientation and preregistration in June before the freshman year. The personal and academic counseling and tutoring are available throughout the four years at UNC-G, although freshmen are the heaviest users of services. The student retention project began as a project to serve freshmen, but has now opened up to all students.

The program at Boston College is directed at undergraduates at Boston College. It reaches out into high schools to identify students with high potential who might not have considered Boston College, but the main thrust of the program begins with acceptance to Boston College, and to the OTE program. Activities begin the summer prior to entering Boston College and continue with monitoring, tutoring and advising throughout the four years at the institution.

Scope and Types of Services

The range of services offered at these institutions has been developed to meet the needs of students at the particular school. These services are focused on addressing academic, financial and personal needs of students. Fresno and Purdue have many special programs throughout the campus to serve students with different needs. At Boston College there is one very intensive effort that focuses on a small number of students. UNC-G has two special programs, but also individuals within regular offices (admissions, financial aid, etc.) who are concerned with special needs of minority students.

Although all the schools provide financial aid to students through scholarships, loans and work-study, this is not a major part of retention efforts at the three public institutions we studied, since tuition is relatively low. At Boston College, the high tuition is believed to be a barrier to increasing Black enrollments, so providing financial support for OTE students is an important aspect of the program.

Most of the academic support in the special programs consists of individual and/or group tutoring, but two of the institutions offer courses for credit as part of the special program. Purdue University courses entitled "Techniques of Academic Problem Solving" and "Minority Engineering Student Seminar" are part of the regular curriculum, but grew from the special engineering program. At Boston College the courses taken in math and English in the summer OTE program may be for credit if students place in the upper levels. Lower level courses are designed to bring skills up to college level and therefore are not for credit.

Fresno is the only institution that has established a faculty development component. This activity is designed to make faculty more aware of the special needs of minority and nontraditional students. Other institutions have held workshops to make faculty more aware of these needs, but this has not developed as a formal ongoing activity.

Summary

As described above, we found great variation in the institutions and their student bodies. As a result of these differences, the retention efforts differed in terms of target population, types of services offered, scope and intensity of services and their location within the institution. These differences demonstrate that retention efforts for minority students can be developed and carried out in many different ways, at different types of institutions.

Characteristics of Successful Retention Efforts

Although we found many differences in the four institutions and their programs, we also found that there were certain common characteristics across the programs--characteristics that appear to be elements of successful retention efforts. These characteristics are: the presence of a stated policy; high level of institutional commitment; substantial degree of institutionalization; comprehensiveness of services; dedicated staff; systematic collection of data, monitoring and follow up; strong faculty support; and non-stigmatization of participants.

Policy

Establishing institutional policies to enhance minority retention emphasizes the importance of the issue on campus. All four institutions have policy statements supporting retention efforts for minority students. CSU-F has this as part of its statement of mission; UNC-G has a mission to serve the population of North Carolina with explicit racial goals; Purdue's Schools of Engineering have issued a statement that sets affirmative action goals and procedures for achieving those goals; and the trustees of Boston College have stated the institution's commitment to a specific target level of minority enrollments.

Another important area where institutional policy can make a difference is admissions. All four institutions have special admissions policies under which certain requirements for admissions can be waived. Moreover, all four institutions provide the necessary support and academic assistance for specially admitted students.

Institutional Commitment

At all four institutions, endorsement and support for minority retention policies are present at the highest levels of the administration. This support assures strong leadership in implementing these policies. CSU-F's president has made minority retention a priority and has taken a vigorous stance to ensure implementation of a retention policy. Purdue, UNC-G, and Boston College, all have institutional support and leadership at very high levels for their retention efforts. This results in respect and legitimacy for such efforts, financial support, and a high degree of cooperation from other areas within the institution.

Institutionalization

The extent to which a retention program is institutionalized is important to its stability, its ability to plan, its acceptance by other entities within the institution, and its continued existence. All four retention programs discussed in this report have become important functions of the institutions and are viewed as integral parts of the schools. The institutions provide a good portion of their financial support as well.

Institutional Climate

A climate that is favorable to the existence of minorities on campus contributes to the success of minority retention programs. In such a climate where differences flourish, minority-related activities are a normal part of campus life and minority students feel more comfortable and less alienated. A favorable institutional climate may be the result of institutional commitment to minority access and retention, and/or the presence of a "critical mass" of minority students on campus. CSU-F and UNC-G have institutional climates that are favorable to minority students, while Boston College and Purdue University have climates that have been characterized as "neutral but not hostile."

Comprehensiveness of Services

Although there are many variations in the types and delivery of retention services among the institutions studied, all offer a wide range of support services that include counseling (academic and personal), tutorials, financial aid, and basic skills assistance. These services are designed to help students adjust to all phases of college life--assisting in personal, academic and financial concerns.

The programs provide support over a period of time from pre-enrollment through at least the freshman year. They include recruitment, orientation, and the in-school support services described above. All four institutions make special efforts to recruit minority students, although the extent and focus of recruitment efforts vary among the institutions. Orientation is another important component of retention, and all the subjects of the case studies offer some type of orientation program, although the degree of intensity and length vary. And finally, all programs contain substantial efforts to assist students once they enroll at the institution.

Provision of financial assistance to minority students is another service that all programs provide. There is much variation in amounts and types of financial aid, ranging from assistance in obtaining financial aid from the university, to scholarships, with aid awarded on the basis of need as well as merit.

Dedicated Staff

The presence of dedicated staff is one of the most important ingredients of success in a retention program. In addition to being devoted to the goals of the program, the director should be a strong, capable individual, who is able to foster and maintain cooperative relationships with other areas within the institution. The degree of dedication evident in the staffs of all the programs studied is remarkable, as are the excellent leadership strengths of the directors of these programs. Furthermore, the directors bring a wealth of experience to their jobs, having worked in their respective programs for several years.

Data Collection

The establishment and maintenance of a data base ensures the accurate identification of needs; allows the monitoring of program effectiveness as well as student progress; provides an early warning system for problems; and makes possible the implementation of important features of most programs, such as follow up and evaluation. All four retention efforts enjoy the support of an efficient system of data collection and maintenance. Purdue's Office of Education Research and Information Systems performs this function for the Minority Engineering Programs, as do UNC-G's and CSU-F's Offices of Institutional Research for their respective programs. At Boston College, data are collected and maintained jointly by the AHANA Student Program and the Office of Admissions.

Faculty Support

The support and cooperation of faculty are important factors contributing to the success of retention efforts. As one of the administrators whom we interviewed noted, the most important changes in the institutional environment take place in the classroom. Factors that contribute to increased faculty support are strong institutional commitment and support for retention at top levels of administration; the ability of the program director to establish good relationships with faculty; and the demonstrated success of programs in improving minority students' academic skills. Education of the faculty via workshops and conferences to increase their awareness of minority needs might be another method of gaining the support and cooperation of faculty. All four institutions enjoy a high degree of faculty support; at all four institutions the factors contributing to increased faculty support are present. Two of the institutions, UNC-G and CSU-F, also have activities to promote faculty awareness of minority needs.

"Non-Stigmatization" of Participants

The lack of stigma attached to participating in special retention programs is a function of a positive racial climate on campus and of faculty support. An institutional environment that supports and encourages minority related activities will foster pride in a student's affiliation with any minority program. Faculty who respect retention programs will not discriminate against the participants of such programs in their classes. At none of the institutions included in this report did students complain of being stigmatized for belonging to a minority retention program or receiving special services for remediation. On the contrary, many of them felt proud of their participation as well as fortunate in being able to take advantage of the services offered.

Discussion

The findings of our case studies regarding characteristics of successful retention programs agree with much of the literature cited at the beginning of this report. The effect of a positive racial environment on campus is mentioned by several researchers as contributing to increased retention and good academic performance (Allen, 1981; Bean & Hull, 1984; Bennett & Okinaka, 1984; Burrell, 1979; Edmonds, 1984). Retention efforts that include recruitment, admissions, academic advising and financial aid as well as special admissions criteria and support services--in other words, a comprehensive offering of services--are considered by many to be a necessary ingredient for success (Anderson, 1978; Beal & Noel, 1979; Crockett, 1978; Gamson, 1978; Ott, 1978). Leadership and faculty support for retention efforts are found to be key elements in successful retention, as are attitudes and interaction of students with faculty and staff (Gamson, 1978; Lenning, Sauer & Beal, 1980). Institutionalization of programs and the comprehensiveness of support services are mentioned by Keimig (1983) as being the two most important characteristics of successful developmental programs; this might also apply to retention programs, many of which include components that are developmental in nature.

The wide range of variation among the institutions studied illustrates how these characteristics can be present in very different settings. The manner in which the institutions have applied similar principles to their particular circumstances can serve as a guide for other institutions. We hope that other universities and colleges will see these programs as models from which to gain ideas for adaptation in their own settings.

The following section describes a process for developing effective minority retention programs. It is a general process that is adaptable to all institutions.

A Model for Developing Effective Minority Retention Programs

Figure 1 is a simple diagram representing the major steps needed to formulate a retention program. The first step, which is carried out by the top levels of administration and/or the Board of Trustees, is to make a policy decision to enhance minority enrollment and retention. Once this decision is made, the institution must formulate a way to carry it out. This involves a needs assessment and development of a data base to examine minority enrollments and retention rates and plan for the future. Usually institutional research, often working with other offices such as admissions and the registrar, will coordinate this effort.

After the needs assessment, the institution is in a better position to decide what can be accomplished within a specified period of time. At this point, the administration of the institution--usually the president's office--develops a policy statement with specific goals or targets to meet.

Development of a program can now proceed from this policy statement. The program addresses in a practical manner how goals are to be accomplished. Usually a committee consisting of both faculty and administrators, as well as individuals who will be responsible for program efforts, coordinate program planning and development.

Once the program has been developed, implementation begins, sometimes with a small pilot test, and sometimes on a larger scale. The program director and program staff are the major actors in this phase, but they are also in contact with others in the school, including faculty, deans and administrative staff.

Monitoring and evaluation are important elements in the whole process of program development and implementation. Program efforts must be

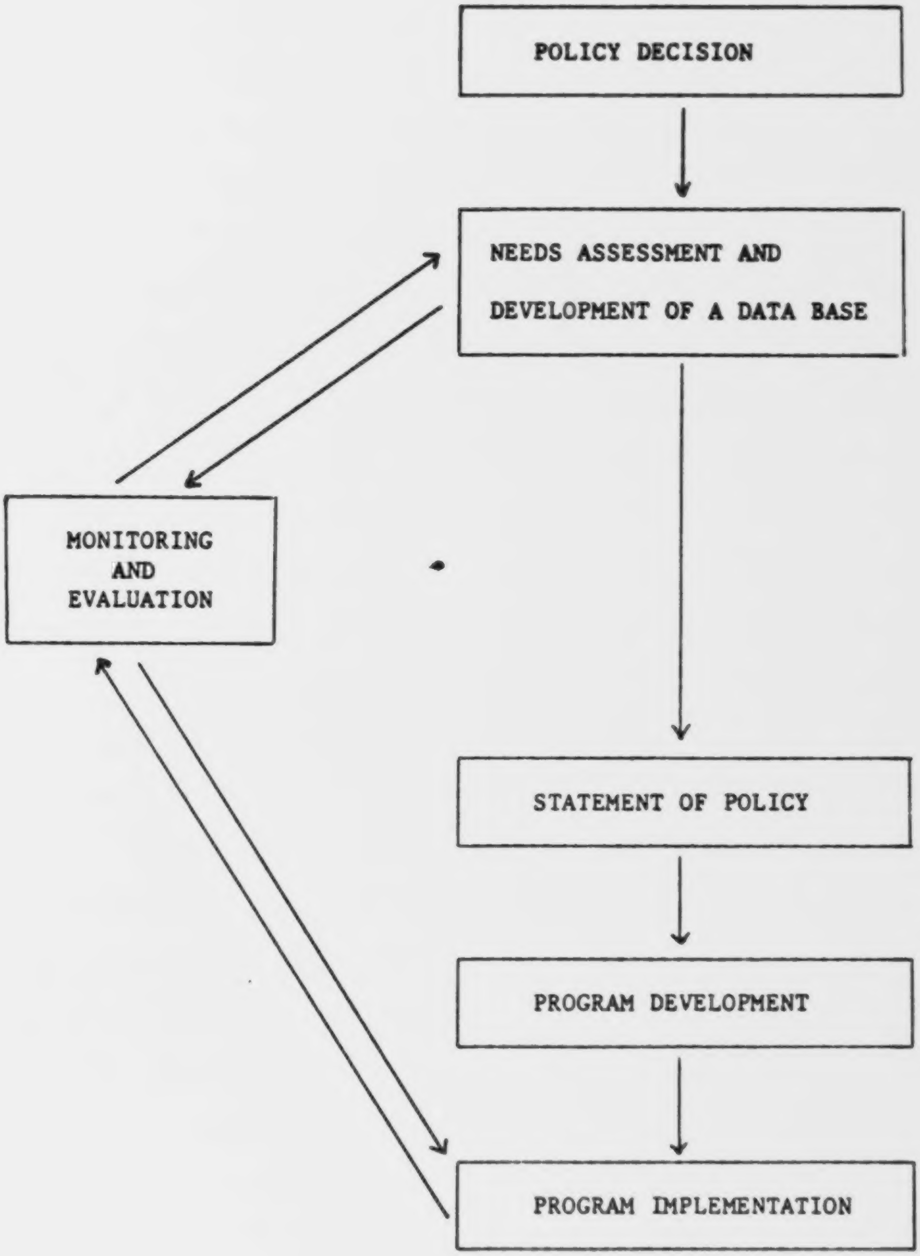

Figure 1. Major steps in formulating a retention program.

monitored to determine if any finetuning is needed. Usually the program staff, often working with institutional researchers, are responsible for this function. In addition, an impact evaluation should be carried out by institutional researchers to determine the effects of the program and see if goals are being met. Data collected through monitoring and evaluation activities are added to the data base and may alter future needs assessments and goals development, and in turn, program efforts.

Thus, from this model it is clear that retention efforts include all parts of the institution and constitute an ongoing process in which changes are made as needed.

Minority Retention: A Broader Perspective

It is obvious from the retention efforts of the four case studies described in this report that they involve all aspects of the institution--recruitment through admissions, orientation, academic and personal support during the undergraduate years and even beyond. Retention, then, is much more than "keeping students in school until they graduate." It begins with motivating students to aspire to higher education, preparing them for the rigors of a college career, assisting them to matriculate, helping them finance their education, and offering them academic and personal support during their college years. As we have seen in the case studies, undertaking such tasks requires a considerable commitment of resources on the part of the institution, and institutions make that commitment for a variety of reasons.

Some institutions may wish to support retention activities because of a belief that one of the roles of higher education in a democratic society is the development of talent and skills in its citizens, both as a means of facilitating their own social and economic advancement and as a mechanism for developing and utilizing the nation's human resources. Others may realize that the changing profile of the college population, which is becoming older and increasingly minority, calls for a plan of action that will enable them to respond to the needs of this population or face extinction. Still others may give both the above reasons for their decision to work to increase minority retention. Nevertheless, institutions must realize that the issue of minority retention is part of the larger issue of equal access to educational opportunity and cannot be addressed without considering all aspects of equal access.

The goal of equality of access to education requires that latent as well as manifest talent be identified and fostered in a nation's citizens. The reservoir of latent or potential talent that disadvantaged populations, especially minority populations, represent is considerable, as is the investment required to tap this resource. In view of this nation's commitment to the ideals of a democratic society, this investment is worthwhile and praiseworthy. In the face of the harsh reality of a changing college-going population and the needs of an increasingly technological society, this investment is a necessity.

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APPENDIX

Boston College

The Institution*

Boston College was founded by Jesuits in the same year, 1863, in which the Emancipation Proclamation became effective. It is one of the oldest Jesuit institutions in the United States, and it is rich in Jesuit tradition. For its first fifty years, it was located within the city of Boston. However, just prior to World War I, the college moved to its present site in Chestnut Hill which forms a border between the affluent, middle and upper-income suburb of Newton and the comparatively poor city of Boston--a city in which 20 percent of the population is at or below the poverty line. The middle-class status of the town of Chestnut Hill mirrors the present composition of the student body. This fact stands in sharp contrast to the original purposes of the founding of Boston College as an institution catering to poor, Irish Catholics who were then excluded from Yankee culture and social institutions.

Inasmuch as Yankee prejudices and discriminatory practices initially excluded signficant numbers of the Irish population from participating in its institutions, Boston College became the primary training ground for Irish Catholics in Boston, Massachusetts and the New England area who could not or found it difficult to enter such institutions as Harvard, Yale and the Massachusetts Institute of Technology. The institution painstakingly built a strong liberal arts curriculum and began to emphasize specialized, professional training in such fields as law, education, business/management and nursing. This emphasis has had enormous consequences for the assimilation of the Irish middle-and-upper classes into the cultural, political and social life of Massachusetts. Equally important is the fact that as Yankee power and influence either waned or shifted, training received at Boston College enabled many men and women of that heritage to assume powerful and influential positions. Graduates of Boston College include such political personalities as Thomas P. O'Neill, Jr., Speaker of the U. S. House of Representatives; William Bulger, President of the Senate in the Massachusetts State Legislature; Charles Flaherty, Majority Leader in the Massachusetts House of Representatives; Father Robert Drinan, former member of the U. S. House of Representatives and influential religious leader and educator; and several members of local, state and federal legislative bodies.

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* Our consultant, James Blackwell, provided the information on institutional climate and historical context of Boston College.

In addition, graduates of Boston College are extremely influential in banking institutions in Boston. The institution has been the training ground for a number of principals and guidance counselors in the Boston Public School System. But, the institution's majors in the field of education rarely are required to do internships or practice teaching in Boston. Rather, they tend to receive this training in suburban schools. Nonetheless, when decisions are made with respect to placement in the leadership of school systems, Boston College graduates play a significant role in rendering those decisions.

As an institution of higher education, Boston College has emerged as prestigious and influential. Its status is due largely to the quality of its liberal arts curriculum, its schools of law, management, social work, education and nursing whose curricula are rigorous and whose faculty have established a national and sometimes international reputation. In terms of the institution's status within the community of colleges and universities in metropolitan Boston, Boston College is in the upper level of the second tier of these institutions. The upper tier is led by Harvard University and Massachusetts Institute of Technology (M.I.T.). The second level institutions probably include, in alphabetical order, Boston College, Boston University, Brandeis, and Tufts University. None of these institutions has the national or international standing of the first tier institutions.

Institutional Climate

The 225 acre site at Chestnut Hill, dominated by neo-Gothic architecture and a tri-level physical plant, is one of the most idyllic and visually beautiful campuses in New England. Its upper campus consists of dormitories; the middle/second level contains classrooms, laboratories, administrative and student services. The lower campus contains apartment complexes, recreational facilities, and parking areas. The entire area is tree-lined with spacious walks and gives the appearance of being completely walled-in, separate and apart from the world outside.

The institution offers 28 baccalaureate majors in traditional liberal arts/science fields plus one inter-disciplinary or self-devised undergraduate major. As is the case with most colleges and universities in the New England area, Boston College has a well-defined core curriculum required of all undergraduates. One major difference in that core is that, unlike most institutions in the Boston area, undergraduates at Boston College are required to take two courses in theology. This limited number of courses in religion/theology exemplifies the shift of Boston College to a more secular curriculum in recent years.

Academic programs at Boston College include graduate and undergraduate schools of arts and sciences, and schools in law, social work, education, management, nursing and theology. Its current undergraduate enrollment is approximately 8,000 with another 6,000 enrolled students in the graduate and professional schools.

Student Body

The student body of Boston College in 1985 is a far cry from the poor, Irish Catholics of earlier years. With a tuition of approximately $8,000 per year, the institution caters to the middle-class. The student body remains primarily White middle-class and Catholic. Student attitudes toward others seem to reflect the full range of values, attitudes and belief systems found in the Boston area.

Serving Black and other minority students is part of the mission of Boston College and its Jesuit tradition. Yet there is a paucity of Blacks at Boston College. Only about ten Blacks, approximately one percent, hold faculty positions in the institution. This lack of a critical mass may be an impediment to the hiring of Black faculty since attractive Black candidates may perceive the social situation as hostile and unreceptive to them. Blacks go elsewhere even when departments make a serious attempt to recruit them.

Black students comprise only about three percent of undergraduate student enrollment. They are drawn largely from the middle class environments of New York, New Jersey, Connecticut, Washington, D. C. and Massachusetts. These students are also likely to be Catholic and to have attended parochial schools. Many have selected Boston College as a second choice to such institutions as Georgetown, Harvard or Tufts, but some have selected Boston College because of the persuasive powers of White alumni in their high school systems or cities. Many students have selected Boston College because of its attractive, idyllic environment, and the nature of the support services provided by the institution in a Catholic environment. For many, it is an attractive place to be--in Boston but not a part of Boston. The physical setting provides a protective cocoon from the perceived hostile environment of the city.

Hispanics comprise about four percent of the student body and other minorities about four percent. The Roman Catholic ties to Hispanic groups have resulted in substantial Hispanic enrollment with little or no special efforts necessary. In general, Hispanics are from middle class families and fit into the mainstream of the student body; they are indistinguishable from majority students.

One of the interesting aspects of Black student life is the importance of the Black Student Forum. This body enables Black students to share their concerns with others and to persuade the institution to respond to the problems identified. Apparently, those efforts are beginning to have some impact since the Student Government Association began to take some steps to address grievances articulated by Black students during 1984-1985. One group that has enjoyed immense popularity has been the group of Black athletes who came in larger numbers when the College decided to expand its athletic enterprise. The stars of the basketball team, in recent years, have been Black. A few Blacks have become recognized members of the football team but football has been dominated by White players whose performances have been given much more attention by the Boston and school media than has been the case with the basketball team. Despite the favored status and popularity of Black athletes, there is a feeling among some faculty members and students that the college exploits these weekend gladiators by not assuring that they perform sufficiently well to graduate from college. Only one Black basketball player in the class of 1978, had graduated on time prior to 1985. To ameliorate this problem, Boston College has instituted a new program to monitor the progress of student athletes and provide tutors as needed.

Boston College is an institution undergoing profound social and educational changes. Yet it remains steeped in history and traditions. It is attempting to rise in status among institutions of higher learning in the area, strengthen its academic programs, attract a more diversified student body, and build strong athletic programs with winning teams that will result in substantial donations by an ever influential group of alumni.

Recruitment

Recruitment of minority students is an important part of minority retention efforts at Boston College. The school has a national student body, but draws heavily from the Northeast and Massachusetts in particular. Fifty-one percent are state residents. About 61 percent of entering freshmen have verbal SAT scores above 500 and 78 percent have math above 500. Blacks have been difficult to recruit for several reasons. Boston College often competes for Black students with more prestigious Ivy League schools that can provide more lucrative aid packages. The predominantly White, upper middle-class student population may not seem appealing to Blacks. All agree that the presence of more Blacks will help attract other Black students, so increasing Black enrollments has become a high priority at Boston College. Enrollments of entering freshmen Black students have increased from 42 to 84 in the last three years. Although numbers are still small, this represents a doubling of Black freshmen.

The admissions office is placing substantial effort on recruiting more Black students. One admissions officer, a Black female who is a former graduate student and teacher at Boston College, spends considerable time on

Black recruitment, including going to fairs, visiting high schools, telephoning, and engaging Black alumni in the effort. A special brochure targeted at Blacks has recently been published. Staff believe this increased publicity aimed at Black students is helpful. Recently, Boston College received a favorable review in the Black Students' Guide to Colleges, which administrators hope will increase the interest of Black students in attending Boston College. In addition, there are now special funds targeted for Black student financial aid. The high tuition at Boston College is believed to be a barrier to increasing Black enrollments.

There is some disagreement within the Boston College community regarding where to direct recruitment efforts. On the one hand, some believe that taking more at risk students and providing necessary support is the best way to increase Black enrollments. Others indicate efforts should be directed at higher ability Blacks and believe substantial support for educationally disadvantaged Blacks may deter recruitment of talented Blacks. Currently, the institution is using both approaches. One effort aimed at higher ability minorities is to increase the number of Black participants for Discovery Weekend, a special event that brings 60 top high school students to Boston College. Another effort, aimed at high risk students, is the Options Through Education program that will be described in detail later.

Although the overall number of Black applicants and acceptees is growing, getting Blacks to matriculate is difficult. Boston College has followed up those who were accepted but did not matriculate and found no systematic reasons for their failure to enroll at the college. Students went to many different schools--public and private--and the admissions office could not discern any pattern nor recommend any course of action to increase the matriculation rate. There is at Boston College a commitment--from faculty, administrators, and students--to increasing Black enrollments.

The AHANA Student Programs

The Office of AHANA Student Programs serves as a center for academic and personal support services for individuals from ethnic/racial groups subsumed under the acronym AHANA (African American, Hispanic, Asian, and Native American). The goals of the AHANA office are to provide personal and academic support to AHANA students in order to increase retention. The office functions to help students negotiate their way through Boston College. In addition, the office tries to make the school more sensitive to the needs of AHANA students. The Office of AHANA Student Programs operates a summer transition program (Options through Education) for high potential, economically and educationally disadvantaged minority students, and provides tutoring and advisement to these and other minority students throughout their four years. The AHANA house also functions as a drop-in site for students to socialize as well as a place to receive services.

The Office of AHANA Programs is located in a row house where other houses of the university with important offices are found: the Academic Vice President and Dean of Faculty, Vice President for Student Services, and Vice President for University Relations. The location of the AHANA House is therefore a visible symbol that the AHANA services are important to the Boston College community.

History of AHANA Student Services

The major functions of the AHANA programs have existed since 1968, but the particular activities and organization of the office have undergone several changes since that time. In 1968, Rev. Michael P. Walsh, S. J., then president of Boston College, initiated the Negro Talent Search Program, and committed $25,000 per year for this purpose. In the first year of operation, the program identified 34 students and developed a special orientation program for them. In 1969, 35 more students were added to the program. The University Board of Trustees in 1971, made a commitment to 10 percent minority enrollment and expanded the program to about 75 students each year from 1971 to 1974.

During this period, (1971-1974), the program was renamed Black Talent Program and was run by students with a faculty advisor. Black enrollments in the mid 1970's rose to their highest level of about 500, but below the goal of 10 percent. The student leadership of the Black Talent Program controlled the admission of Black students and the distribution of financial aid to them. Student leadership made judicial decisions about various aspects of the daily lives of Black students, and served as advocates for Black students who felt they had been victimized by some form of injustice. While the Talent Program may have been the source of important social and emotional support, the program's critics claim that it did little to strengthen the academic quality and performance of many less well prepared Black students recruited under this program. Consequently, at one point, there was only a 17 percent retention rate among Black students at Boston College. This situation changed after 1975 when the Committee on Minority Education decided to recommend the termination of the Black Talent Program and to replace it with an Office of Minority Student Programs.

The Office of Minority Student Programs was formed and a full-time professional director appointed. The program developed into a form similar to the current one with tutorials, academic advisement and counseling. The name of the office was changed from Office of Minority Affairs to AHANA in

1978 and, under the leadership of the current director, developed into its present form. It serves all AHANA students, although the priority is in recruiting and retaining Black students, since that is where there is the most need.

Faculty and administrators indicate that since 1978 the AHANA House has obtained a more important presence on the campus, with substantial long-term support. The Office of AHANA Student Programs has made an effort to address the needs of minority students and to collaborate with other institutional offices to serve those needs. The AHANA House and its activities have contributed to increased awareness of other cultures on the campus, but some indicate, with the small number of AHANA students the impact is limited and more awareness of faculty and students to other cultures is needed.

Options Through Education

A major activity of the AHANA office is the Options Through Education (OTE) Program, a transitional, six-week summer program for specially admitted Boston College students. The admissions office identifies approximately 40-50 AHANA students who show high motivation and potential for success at Boston College, but who are economically or educationally disadvantaged. Students accepted into this program receive full funding for the four years at Boston College. Students receive no stipend for the summer transition program, but tuition, room and board for the summer are free. This commitment to the financial needs of these students is believed to be an important factor in their high retention.

The OTE program has been very successful in improving the retention rate of high risk minority students. Despite educational deficiencies, these students are able to succeed at Boston College. The overall retention rate of OTE students is 81.2 percent. The retention rates for the past four classes are shown below, along with the proportion who withdrew for academic reasons (Table 1). Staff believe they can continue to improve the retention rate of OTE students. Now that retention is good, staff want to work on improving grades of the OTE students.

Table 1

Retention of OTE Program Participants
(1983-84)

	Class of 1986 (1 year)	Class of 1985 (2 years)	Class of 1984 (3 years)	Class of 1983 (4 years)
Retention Percentage	93.8	84.1	78.3	68.6
Attrition (Academic Reasons)	4.1	6.8	6.5	14.3

Source: Office of AHANA Student Programs
Highlights of 1983-84

The purpose of the summer transition program is to build up basic academic skills in math and English and provide an orientation to college life. the summer program gives students an idea of what college level work will be like. Depending on the level of math and English students pursue, they may receive three to six college credits, allowing them to take a lighter load during their freshman or a subsequent year. The overall philosophy of the OTE program is based on building the self-confidence of students, improving thinking skills and increasing interaction of faculty and students. The courses also try to teach students to examine assignments and understand what the instructor expects of them.

The program consists of two hours of English and two hours of math each morning. Afternoon classes have varied over the years. For example, last summer the students could elect to take courses in biology, chemistry, intercultural awareness, oral communications, and human sexuality. Some faculty believe this kept the students too busy, so this summer there will be fewer afternoon courses. The major components, English and math, have remained essentially the same over the past few years.

English. Students are divided into three levels of English: one ESL, one somewhat below a college level course, and a high group at the level of work of a Boston College course. An English professor, with five Ph.D. students as instructors, coordinates the English program. Classes are small, allowing substantial feedback and individual attention. The purpose of the ESL and college preparatory course is to prepare students for college-level work. In all classes (except the ESL) the emphasis is on writing. Faculty attempt to teach students to write the kinds of essays required in college. Students indicated that constant writing practice was invaluable and prepared them for assignments in all their classes.

Generally, faculty find that OTE students have many of the same difficulties as other Boston College students, but often more severe. Many are timid with the use of language. In some cases there are also problems with fundamentals, such as grammar, that most Boston College students usually do not have. Although most of these students do not usually take many higher level English courses, this introductory course prepares them for writing assignments they encounter in their courses at Boston College.

Math. Upon acceptance to the OTE program, students are given a diagnostic test to take at home and mail in and then are placed in math classes at one of three levels: pre-calculus (for which students receive college credit), a basic review course to prepare for pre-calculus, and a course for those four or five students who have fundamental arithmetic problems. Because there are two course hours per day and classes are small, students get considerable practice in working problems and going over assignments. Faculty can be sure students understand fundamentals. For many students the math is review, but most have weak areas that they can improve. For the weakest students, the instructors try to upgrade arithmetic skills and understanding of algebraic concepts and then advise students not to take math during their four years at Boston College. (Fine arts or communications may be taken as a distribution requirement in place of math). Part of the emphasis, especially for the weaker students, is to build confidence. Those students who go on to take higher level math courses at Boston College do reasonably well.

Both math and English instructors are available in the dorms in the evenings to help students with their assignments. This helps students keep up and understand each lesson. By being in the dorms, faculty are accessible and viewed as non-threatening by students. One faculty member said the message they want to give is, "Come in and you will find people smiling. Relax and they can help you with your work." Non-credit courses are not graded, which further alleviates tension, so that the focus can be on improving skills and learning basics, rather than receiving a high grade.

During the summer, staff hold weekly meetings in which any problems of students can be discussed. Faculty indicate that this is useful and often helps them to understand what might be going on with a student. Because of constant contact with students and weekly meetings, faculty are always aware of student progress.

Students find the summer useful both in terms of academic preparation and in getting to know the campus. Yet, freshman year on a campus in which most of the students are from White middle-class backgrounds is still a shock to some. Although students indicate the atmosphere is friendly, they say it is more competitive than what they are accustomed to. One advantage OTE students have is that they know faculty in English and math, along with the program staff. OTE students often contact these faculty for advice or assistance, although students are more likely to use AHANA house for this purpose. All of this seems to put these students ahead of others in learning to negotiate the college.

Monitoring and Advising

The OTE students receive monitoring and advising throughout their four years at Boston College. The monitoring and advising are key components of the retention effort. Special care is given to prevent students from falling into academic difficulty and to help with personal and financial problems as well. One graduate assistant and two administrative aides are assigned to each group from freshman through junior years. The Director and Assistant Director take charge of the seniors. Students must meet with advisors at least monthly, although most come in more frequently. If a student is having difficulty in a subject, the advisor will usually be aware of the problem even if the student is not, and suggest that the student get a tutor. The AHANA office keeps a list of tutors available, but students are responsible for making contact. Most tutoring is one-on-one and is carried out by upperclass and graduate students who are paid on a per student basis. Last year there were 30 tutors. Tutors undergo training throughout the academic year that consists of monthly workshops on instruction and discussions about how to handle difficult situations. Occasionally two or more students may request tutoring together. Last year there were 207 tutorial requests; 95 of these were from freshmen, but only 17 from seniors.

As an additional check on student performance, progress reports are sent to each instructor which she/he sends back to the AHANA office. (All AHANA students, in addition to OTE students, may sign permission forms to have this monitoring.) The progress report asks for the following information:

- Does the student complete assignments?
- How many absenses?
- Does the student seek help?
- Do you recommend tutorial?
- What skills does she/he need to develop?
- What are the weaknesses?
- Grade to date
- Expected final grade

Students and faculty indicate that this system helps tremendously and prevents most students from falling too far behind. It also helps to assure class attendance. The message students get is "don't come in only at crisis times; keep in frequent contact with the office to avoid last minute crises." Staff indicate that once in a while a student will slip through the cracks, but for the most part the system works well.

Both students and faculty told us that the advising OTE students receive is far superior to that received by most Boston College students. The Assistant Director, along with the graduate assistants and faculty, advise each student, based on their interests and abilities. One faculty member at Boston College indicated that in the past the regular academic advising has not been very good (there have been some recent changes to improve it), so OTE students get much better advice, on a more individualized basis. Some students come in with unreal expectations about what they can handle. Through the advising, staff try to redirect their interests. For example, some students come in wanting to be premed, but the math and science skills are not there; some students are confused by requirements and have difficulty choosing courses. Students with whom we spoke indicated this advising was very helpful to them. One student said, "They [Boston College] just give you the catalogue and tell you to choose courses. We would not have known what to do without the advice in the AHANA office."

Other Counseling

Although academic concerns are the basis for most visits to the AHANA office, personal issues and financial matters are also reasons. The largest users of these services are freshmen and the rate of use declines as students progress through their four years.

AHANA assists with career counseling as well. The AHANA office maintains a career coordinator who assists students in the career office, in making appointments with visiting recruiters, and arranging the career-EXPO week-end. The AHANA HOTLINE, a bi-monthly newsletter, lists opportunities for internships, jobs, and scholarships for AHANA students.

Other Services

The AHANA House is the hub of activity for AHANA students. It is a place to meet other students, to drop by and talk with someone and to receive academic and personal support.

The AHANA office also coordinates, with the Office of Student Affairs, the Black Family Weekend and other intercultural activities. It serves as a focal point and coordinating office for student activities such as:

- Voices of Imani-Boston College's Gospel choir
- Black Educators Association
- Black Student Forum
- La Union Latina
- Asian Student Association
- N.A.A.C.P.
- Gamma Nu Psi
- Omega Psi Phi
- Alpha Kappa Alpha
- Delta Sigma Theta

These other student programs vary in their degree of activity and popularity with students. The Voices of Imani is a popular activity with Black students and is an active group, as is the Black Student Forum.

Tuition Remission

Boston College offers students, selected on the basis of need, the opportunity to make up deficiencies in approximately 125 courses during the summer on a tuition free basis with free meals and housing. The AHANA office can recommend students for this benefit. It has a yearly budget of $125,000 for that purpose. Occasionally this is used to reward students for good work, by letting them get ahead in their coursework. Although there are no tutors available for summer courses, students indicate that there are usually students around who have taken courses and will provide assistance. For students having difficulty during the year, the tuition remission program is a big help, and contributes to the high retention rate. It allows students to take lighter courseloads during their four years.

Staff

The Director of AHANA Student Programs assumes overall responsibility for the programs, including planning, budget allocation, staff, etc. He is responsible for university relations with the AHANA office. The Director interacts with other offices in the college through committees or special functions. For example he serves on the Committee on Student Eligibility (for extra-curricular activities) and on the Martin Luther King Scholarship Committee with the Academic Vice President.

The current Director has been in the position since 1978. Prior to this he worked in youth services and earlier for an Upward Bound Program. One faculty member indicated that he believes this background in human resources and youth services is a real asset because the director seems to know how to marshall all the resources on the campus to help a student unlike a faculty member who might only know how to help a student in one area. The director is highly respected by faculty, administrators and students. When we asked about the strength of the program, inevitably the first thing mentioned was the Director and his staff.

The current Assistant Director, an Hispanic woman, has been in the position for two years. She is responsible for the day to day activities, training of preceptors and graduate assistants, data collection and handling many student problems. Her two predecessors were in the position two to three years each. Although there has been some turnover in this position, several people indicated that all individuals in the position have been very capable and there has not been any problem due to staff changes. Both the Director and Assistant Director monitor the progress reports of students and meet with other university staff on matters relating to students or the project.

During the academic year, the AHANA House employs three graduate assistants to counsel students. There is one for each class of freshmen, sophomores, and juniors; seniors rely on the Director and Assistant Director. These graduate assistants are usually from the counseling psychology or social work departments and therefore have backgrounds and interests in counseling. The Assistant Director trains these individuals along with the administrative aids in workshops and has developed a manual to help them in working with students. If problems arise that the graduate assistants cannot handle, they defer to the Director or Assistant Director.

Each graduate assistant has two administrative aids, who are upperclass undergraduates at Boston College. These students assist with locating students who have not met with graduate advisors and assisting the graduate advisors in other counseling matters.

The Administrative Assistant handles scheduling of student appointments and carries out general office management duties. She keeps a list of tutors available in 25 subject areas. When students are advised to get a tutor for a subject, the student will ask the Administrative Assistant for the name of someone, and then the student will contact the tutor and schedule an appointment.

The AHANA House employs two full-time coordinators for the OTE summer program. These people are responsible for the organization and arrangement of the six-week session and handle day to day problems of students. In addition, former OTE participants serve as peer counselors during the summer.

There are four instructors for math: two regular Boston College faculty and two graduate students. The English faculty for OTE consist of one full-time professor and four graduate students. Although there is no special training for the program, all the instructors have experience teaching and/or tutoring and all have an interest in working with minority students, since they choose to teach in the program. One of the math instructors, for example, had previously developed a math help center for students at another college. He had also tutored in the dorms as an undergraduate and indicated that this background made him more sensitive to the needs of students and the importance of being accessible to them. Most of the college faculty who teach in the program return for several years. There is, however, more turnover among graduate students as they complete their studies. Yet, the program has a sense of stability and tradition within the institution. None of the faculty is Black or Hispanic, but students do not find this to be a problem. Overall, they find instructors accessible and concerned with the needs of AHANA students.

The Director plans to add one more full-time staff person to help with AHANA House. Since the approach of the program is individualized support to help students negotiate the school, the director indicates more assistance is needed. This new person will also assist in keeping statistics on participants, including follow-up information.

Participants

All minority students may take advantage of the AHANA House and many of its services. These students comprise about 11 percent of undergraduate enrollment at Boston College. The Options Through Education Program, however, is for a selected group of students, usually 40-50 in each class, who are identified as having potential but who do not otherwise meet the criteria for entrance into Boston College. Usually such students have strong high school grades and good letters of recommendation, have demonstrated leadership ability and interest in community service, but have

SAT scores that are lower than the mean for Boston College students. Many come from schools that are not as strong as those of the average Boston College student. The admissions office, working with the director of AHANA Programs, selects the students. With acceptance into the OTE program, students receive a commitment of full funding for the four years. For nearly all students accepted to Boston College under this special plan, acceptance is conditional upon participation in the OTE program. Upon acceptance to the program the student signs a contractual agreement in which he/she agrees to specific conditions for the summer program such as: attending all classes, participating in study halls, responding to curfew, and seeking help when experiencing difficulty in subjects. The student also agrees that during the academic year he/she will meet regularly with the graduate assistant, seek tutorial assistance when needed, and attend all meetings as prescribed by the Office of AHANA Student Programs.

Most AHANA students hear about the OTE/AHANA program at the time of their acceptance to Boston College. Although the students include Hispanic, Asian, Black, and some foreign students, the priority is on locating and accepting more Blacks into the program. Staff indicate this requires more outreach into the high schools. Although many of the OTE students come from weaker high schools than the typical Boston College student and have more trouble with fundamentals, once they go through the OTE program they can handle the college curriculum. Students from OTE usually major in communications, psychology, political science, sociology, nursing, or education. Many who start out in more difficult areas such as science or math and have difficulty are often advised to change to a less demanding area.

Students generally find the summer experience a good one, in that it improves academic skills and provides a preview of college life. Yet no program can fully prepare them for the change. One big difference between summer and the academic year is that the OTE group becomes a very small part of the overwhelmingly White student body, whereas in the summer, they "own" the campus. Students regard the OTE program as an opportunity and would recommend it to other minority students. They do not believe there is anything about the program that stigmatizes minorities.

Blacks at Boston College usually have a harder time fitting in than Hispanics or Asians. Hispanics have ties to the Roman Catholic traditions and Asians seem to excel in math and computing areas. But Blacks sometimes feel isolated due to the small number of Black students and faculty. Boston College has recently made a commitment to fund Black students more heavily in order to increase Black enrollments. The students with whom we spoke said they feel a part of the Boston College community but that the AHANA House is essential for them. Overall students find the AHANA programs invaluable and believe they have contributed to their success. Two students with whom we spoke indicated they would have never made it through Boston College without the AHANA programs.

Evaluation

There has been no formal evaluation of the program. Staff, however, keep careful records on students and report the retention and graduation rates of each class of OTE students each year. Staff also keep records of office visits and tutorial assistance. For the program and those we interviewed in the Boston College administration, the graduation rate is the most important outcome measure. The administration is happy with the record and continues to support the program.

Although students have not been asked to evaluate OTE courses or the services they receive, staff and instructors receive constant feedback so if there need to be modifications, these can be made. For example, in the past summer session, students indicated they were kept too busy and did not have enough time to study. The schedule will be changed next summer to allow more study time.

Faculty have not participated in any evaluation of the project, but are able to provide on-going feedback to the director at weekly meetings throughout the summer. During the academic year staff hold regular meetings to discuss both students and program activities.

Relationship to Rest of Institution

The Office of AHANA Student Programs reports to the Vice President for Student Affairs. The Director of AHANA indicated that he feels more closely allied to academic affairs than student affairs, since this program is concerned primarily with academic performance. The Director has good relationships with the Deans and the Vice President for Academic Affairs and enjoys credibility throughout the university. He indicated he has support throughout the university and access to all offices--from the President on down.

The AHANA House is seen by the AHANA students, especially the OTE students, as a valuable resource for the institution. Students believe AHANA House contributes to improved intercultural awareness on campus. But, some administrators believe that the House contributes to segregation of Blacks. Students we interviewed indicated that this was not the case, rather a person could choose to remain separated or to integrate with the rest of the student body. One administrator indicated she would like to see the House serve all students, not just AHANA students. She believes that the OTE program may send out mixed signals to talented Blacks since these high risk students receive full funding and many regularly admitted Black students do not.

Faculty are very supportive of AHANA House and the OTE program. Many point to the good job the current director is doing both for students and the university relations. While most indicate faculty are sensitive and supportive of efforts, some believe more could be done to encourage better intercultural relations and to attract more Black students. There has not been any formal program to make faculty more sensitive to Black, Hispanic or Asian students, but students indicated they find faculty generally responsive and accessible to them. Faculty also expressed the need for more Black faculty and staff on campus. All see the program and House as a much needed facility to encourage diversity within the student body. As one person said, "without AHANA House, the student body would be like white bread."

The program is totally supported by institutional funds and there are no plans to change this. There is strong support for the program from both faculty and administrators throughout the college. All administrators we interviewed indicated they expect AHANA to continue at its current level with only minor program modifications as needed.

Other Services

Although there are no other services on campus specifically for minorities, Boston College maintains the following services for all students:

Learning Resources for Student Athletes--This is a new program in which the varsity athletes are monitored and provided academic support services as needed.

Learning to Learn--This is a federally supported project, open to all students, but located in the AHANA House. It is a one semester course to improve study skills for which students receive credit. Some AHANA students take the course.

These services have no relation to the AHANA House, but AHANA students may participate in the activities.

Summary

Overall, the AHANA Student Programs are viewed as a valuable resource for Boston College and as a successful endeavor to increase minority presence on the campus. The Options Through Education Program provides financial, academic and personal support to students who are educationally disadvantaged. This program has been very successful and enjoys widespread support throughout the college. Yet, because of the small number of Blacks, and the small number of students served in the OTE program, most recognize that the institution-wide impact is limited. To increase its impact and to overcome the charges of separatism, the Director of AHANA programs has made an effort to be involved with all parts of the university and increase collaboration with other offices. This has increased the credibility of the AHANA House. But all agree that there is still a need for more Black faculty and students on campus. To this end, the institution is increasing its recruitment efforts and providing additional financial aid for Blacks. Attracting a more diversified student body and faculty is seen as an important part of the mission of Boston College, and the Office of AHANA Student Programs plays a vital role in achieving this institutional goal.

California State University at Fresno

The Institution

History

The California State University system is made up of 19 campuses, 16 of which have the title "university." Brought together as a system by the Donahoe Higher Education Act of 1960, it became The California State University and Colleges in 1972 and The California State University in 1982. Responsibility is vested in the Board of Trustees, appointed by the Governor. The Trustees appoint a Chancellor, the chief executive officer of the system, as well as the Presidents, who perform the same function for the individual campuses. Systemwide policy is developed by the Trustees, the Chancellor and the Presidents, with the Academic Senate of the California State University system (made up of faculty elected as representatives from each campus) recommending academic policy to the Board of Trustees through the Chancellor. The oldest campus, San Jose State University, was established as a Normal School in 1857, while the newest campus at Bakersfield began instruction in 1970.

California State University at Fresno is the sixth oldest institution in the California State University system. Founded as a junior college in 1910, the institution experienced rapid physical and academic expansion after World War II. In 1961 under the newly created California State College system, it joined the other state colleges in the transfer of authority and control from the State Board of Education to an independent board, the Trustees of the California State Colleges.

From 1965 to 1968 the transition was made to official university status, which became effective June 1, 1972. The university at present comprises the following Schools: Agriculture and Home Economics, Arts and

Humanities, Business and Administrative Sciences, Education and Human Development, Engineering, Health and Social Work, Natural Sciences, Social Sciences, the Division of Extended Education, and the Division of Graduate Studies and Research. From an enrollment of 150 (most of them women) in 1911, Fresno State has grown to an enrollment of more than 16,000 in the fall of 1983.

With the Sierra Nevada mountains as a backdrop and the San Joaquin Valley vineyards as its setting, the campus occupies over 220 acres at the northeast edge of the City of Fresno (population over 200,000). The atmosphere is relaxed and informal, with modern and mission-style buildings and beautiful grounds. (The campus was officially designated as an arboretum in 1978 and boasts more than 4,000 trees.)

Mission

In order to understand Fresno State's commitment to the access and retention of minority students, it is essential to understand its mission. As the major public university in the San Joaquin Valley, one of the world's largest agriculture and agribusiness centers, the institution serves a large geographical area with a rapidly growing population. Its particular service areas are: Fresno, Madera, Kings, and northern Tulare counties. A very large portion of the population in the service area is Mexican American and rural. It is estimated that by the year 2000, this area will be more than 50 percent Hispanic; it is already 30-35 percent Hispanic, mostly Mexican American, and 4 percent Black.

As to its mission, the catalogue states that "as a publicly supported institution, the university has a special mission to serve students from groups that historically have not participated in university education, whether because of age, socioeconomic background, physical ability or geographical location." The section entitled "Retention and Access" will discuss more fully how the institution's interpretation of its mission has influenced its policy regarding minority students.

Institutional Climate

The institutional climate at Fresno State as characterized by persons we interviewed is strongly supportive of minorities on campus and of minority-focused activities. One administrator credited the institutional climate for attracting minorities. His view was that there were two key programs that had contributed to the development of this environment. One was the EOP (Equal Opportunity Program) and the other, the Chicano Studies Program (and to a lesser degree, the Black Studies Program). Others cited the high proportion of Mexican Americans on the administrative staff, many in key positions; the large number of Chicano student organizations as well as Chicano and Black faculty and staff organizations that were very active and vocal; the willingness of many faculty members to work with staff in minority-focused activities; the dedication of the staff members in the various special programs; the university-wide requirement that each student take at least one Ethnic Studies course; and, above all, the leadership of the President of the university, for whom the access and retention of minority students is a high priority.

One administrator, although agreeing that the climate was positive towards minorities, especially Mexican Americans, went on to say: "You know, you can have soul food, you can have Mexican food, you can change the dormitory rooms with regard to color schemes, but what it really gets down to is, the only thing that really matters is what happens in the classroom.... And I think that the environment has not changed as much there as it has in other areas. I think we've done some things to the campus to make the students feel welcome, but I think when you get into the classroom, that's where we have a better job to do.... Getting more faculty to be aware of different attitudes, different levels of background and so on. And I think if we press on, we'll do that."

The following are observations relating to the institutional climate based on interviews with seven Mexican-American students and two Black students who were participants either in the Student Affirmative Action program (SAA) or EOP.* (This ratio is appropriate since Mexican Americans are 14 percent and Black students are four percent of the total enrollment.)

> Several students talked about the importance of a general atmosphere which supports and validates ethnic pride and equal rights. One student noted that it is important that since the 60's, the idea and value of ethnic pride has come to be more widely accepted. A Black student said that at Fresno State there is an atomosphere that students can rally for their rights (even in the face of what students and administrators say is rather widespread apathy and political conservatism among the student body as a whole). Although the overall campus climate is conservative, minority students seem to have perceived and created openings for the expression of their concerns and interests. This can be seen partly in the proliferation of Mexican-American organizations on campus, some of which are mainly political, along with many others which are mostly career-oriented.
>
> The Ethnic Studies Department has also contributed to the overall campus atmosphere by helping White/Anglo students to: get a more enriched (and multicultural) sense of history, get rid of stereotypes, and realize that minorities are important and can't just be excluded or discounted. In fact, one student indicated that most students enrolled in ethnic studies classes are Anglo. In addition, most minorities take some ethnic studies, and through these classes, one student said that "we learn how to develop and integrate our ideas with Anglo society."
>
> Although students didn't freely offer comments about racism, when ... asked ... whether or not most White students are sensitive to their needs and concerns, many of the interviewed students proceeded to talk in detail about their experiences of racism on campus. Several said that some Whites won't even sit next to them in class or in the library, or will move away when walking past

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*The interviews were conducted and the description prepared by our consultant on the project, John Bilorusky, Director, Western Institute for Social Research.

> them on the sidewalks. Further, most of them commented on how the Whites...eat in one cafeteria and the minorities usually eat in another, older one across the walkway. The students I interviewed add that they have a number of White friends, and certainly one can observe a number of instances of cross-ethnic conversation around the campus.... Mexican-American students from rural areas with a high concentration of other Mexican-Americans also are struck with the fact that they are now experiencing racism more directly or overtly than they did in their home communities.
>
> At the same time, all these students seem to be very resilient in the face of this. They seem to have a healthy anger. It is not indiscriminately directed at all Whites, turned inward on themselves, nor does it seem to be suppressed and festering.

Access and Retention

Overview

The issue of the access and retention of minority students is inseparable from the university's sense of mission. One administrator explained that a commitment had been made not only by the system, but by the institution, as a state institution, to serve a very specific population. Since admissions criteria for the system are such that it must accept the top one third of the graduating high school class, it does not expect to consistently enroll students of high academic quality. Given the nature of the students it can expect to enroll, the institution feels that it has an obligation to provide them a quality education and ensure that they graduate.

The institution is also very much aware of its future and of the changes that are beginning to occur already in the clientele it serves: "We are an institution that prior to the year 2000 will be more than 50 percent Hispanic. We have been watching the high school system change and become more and more ethnic minorities. We are meeting and talking with our community colleges and working with them to accept this change in the population. So we have all the environmental signals that tell us that we have to be receptive to a minority student body in a very foreseeable future. We have signs that tell us that the minority population will not want or require the same coursework that we have given for the last twenty years.... So, philosophically, we understand that we must continue to keep reshaping our institution to meet the new demands."

Meeting the demands of the future requires recognizing and dealing with the problems that change brings: "With our Hispanic population, we have been facing the fact that we have some super bright Chicano kids who do not have the rudimentary fundamentals that will get them through their classes. Our philosophy has been that if we have to face our future, we have to deal with these problems. The mission of the university is to be the university for central California, drawing 80 percent of its student body from central California--50 percent of that being Chicano. We must shape its future as well as understand its future and, what is more, do it with a good heart as well as a good head. You cannot meet your mission as an extraneous Anglo portion of your community." Administrators agreed that solving both present and future problems requires input from the campus Chicano population as well as the off-campus Chicano leadership.

Access

Presently, the Mexican American enrollment is 14 percent, while the Black enrollment is four percent. The university would like to see the enrollment more closely reflect the ethnic composition of the community it serves. As a result, a number of outreach activities have been undertaken by the various special programs. These activities involve relations with junior high schools, high schools, as well as community colleges (more minority students enroll as transfers than as freshmen) and will be described below under the program headings.

Retention

In a study of systemwide retention, the California State University, Fresno ranks second in retaining freshmen. Its freshman first-year retention rate is 81.5 percent compared to the systemwide average of 76.2 percent. Its overall five-year retention rate for students who enrolled as freshmen is 53.2 percent, as compared with a systemwide average of 44.4 percent. At the systemwide level, Asians, at 55.7 percent, do best; followed by Whites at 50.2 percent; Unknowns at 44.6 percent; Hispanics at 42.8 percent; Native Americans at 40.8 percent; and Blacks at 38.8 percent (See Table 1).

For transfers (the majority of minority students enroll as transfers) the story is different. A comparison of transfer retention rates (based on retention two years after matriculation) at Fresno State across ethnic groups shows Hispanic transfer students as having the highest retention (74.7%), followed by Asians (74.3%), and Whites (73.1%). The retention rate for Black transfer students was 58.7 percent (see Table 2).

The university has instituted a number of efforts to increase minority retention. Most of these efforts have been undertaken by the special programs and will be described below under each program heading. Activities to increase retention take the form of tutorials, counseling, and special courses.

Special Programs

Overview

The dual emphasis on access and retention of minority students has resulted in these activities being a focus of most of the special programs at Fresno State. Many of these programs contain both an access and a retention component. Special programs at CSUF have assumed a leading role

Table 1

Systemwide Five-year Retention and Graduation Rates Regular Admits by Ethnic Group

	Enrolled in Fall 1978	Still Enrolled in Fall 1983	Graduated by 1982/83	Total Retained or Graduated
Amerind	228	19.3%	21.5%	40.8%
Asian	1,731	25.7	30.0	55.7
Black	650	21.2	17.5	38.8
Hispanic	1,210	23.3	19.5	42.8
White	12,124	17.6	32.6	50.2
Unknown	5,853	18.9	25.7	44.6
TOTAL	21,796	19.0	29.2	48.3

Source: Those Who Stay, Phase V. Technical Memorandum #11, January 1985, Office of the Chancellor, p. 8.

Table 2

Attrition Rates of Entering CSUF Transfer Students by Ethnicity

	Total Entering in Fall 1983	After First Year Fall 1984		Total Loss After 2 Years	
Chicano	237	28	11.8	60	25.3
Asian	148	21	14.2	38	25.7
White	1,412	183	13.0	380	26.9
Overall Average	2,026	276	13.6	565	27.9
Unidentified	137	23	16.8	49	37.6
Black	80	18	22.5	33	41.3
American Indian	12	3	25.0	5	41.7

Source: SIMS select & report (STRACK)

in implementing institutional policy regarding recruitment and retention of minority students. The following are descriptions of the two main special programs that focus on access and retention. The first serves regularly admitted students, while the second serves "special admits."

CORE-SAA

The College Outreach Retention and Enhancement-Student Affirmative Action program has three main components that assist regularly admitted undergraduates: An Outreach Component, a Retention Component, and an Enhancement Component. (Most California State University campuses have some variation of this program and there is a systemwide coordinator.) Although the final responsibility for the entire program lies with the Office of Student Affairs, the Retention Component comes under the direct supervision of the Director of the Learning Assistance Center, who reports to the Vice President for Academic Affairs. The Graduate portion of the Enhancement Component is under the jurisdiction of the Dean of Graduate Studies. Each component is housed separately. As one administrator explained, "What we've done here is that all outreach activities and other non-instructional kinds of activities such as orientation counseling, study skills, are under Student Affairs. Anything that is instructional, like the Learning Center, the tutorials for class courses, educational enhancement, and the graduate component are under Academic Affairs. However, they all report to the Dean of Student Affairs, who's responsible for the entire program."

The Outreach Component. Originally called RSVP, the Outreach Component started out as a pilot project funded by the Chancellor's Office to look at innovative ways to provide access for Chicano students to the university. The focus of the program was working primarily with parents. Bilingual literature was used, and many of the workshops were in Spanish. The project was in existence until 1979. The present project makes use of many techniques and strategies developed by the various programs serving minority students.

The major goal of the program is the recruitment of minority students. Program funding comes from the Chancellor's Office as well as from the President's Office. Program staff prepares a proposal giving projected goals for funding on a yearly basis. The program must also submit a mid-year report indicating progress in reaching those goals and a final report which also serves as an evaluation of the component. Main program elements are: recruiting, counseling, academic advising, campus tours, orientation, early development outreach (career awareness).

There are four staff members. Three do the actual outreach (one of these is the Director as well) and one is a secretary. There are also five student peer counselors who work on a part-time basis. The outreach staff works with community colleges and with high schools to develop relationships with these institutions. They have established a rapport with the counseling offices at these institutions and regularly visit them to give presentations regarding Fresno State or to counsel students individually. Recruitment of students takes many different forms. Outreach staff members are provided with lists of potential candidates by the Admission offices at the community colleges and the Admissions Office at Fresno State also sends them a printout of minority students who are transferring from community colleges to Fresno State. Letters are then sent to these minority students informing them of the services of the Outreach Component. High school counselors will inform the outreach staff about promising students and will arrange for the staff member to counsel the student at the high school or at Fresno State.

The outreach staff does academic and career advising; they also assist high school students in filling out application forms and remind them of deadlines (especially financial aid deadlines). They work with younger students--seventh and eighth graders--"so that when they become high school students they'll know that we're available and they'll come to us." The staff of three outreach workers attempts to make as much contact as possible with the potential pool of minority students.

A file is kept on every student who has been counseled. Prospective applicants are labeled as such. Records are kept of all contacts. Once a student has been admitted to a university, that notation is made. Extensive follow up is required, and the follow up activities are considered to be an important part of the outreach effort. Tracking is done up to the point where the student is enrolled at Fresno State, then the Retention Component takes over.

The Outreach Component has recently started a pilot program involving minority students in two high schools and two junior high schools whereby they provide tutoring on campus in math and English once a week and study skills instruction once a month. They also provide career awareness activities and are planning a parent conference.

During 1983-84 the Outreach Component visited 20 high schools, interviewing approximately 576 high school seniors, of whom 222 (38%) submitted applications to Fresno State. At the community college level, eight colleges were served, resulting in 86 transfer students who applied to Fresno State.

When asked about the effects of the program on the institution, administrators and staff said that they felt that it had definitely increased the number of minority students attending Fresno State. As for its effect on students, it has made the transition easier for them. As one staff member put it: "They're not as in awe of entering the university because of the preparation they've gone through in our program.... It's made them feel more comfortable."

The Outreach Component maintains a direct relationship with all the other Outreach programs on campus--EOP, CAMP, the Office of Relations with Schools (in the Admissions Office). Off-campus, there are ties (through the Coordinating Council) with the University of California Outreach Office, and the Fresno County Economic Opportunity Commission. They also maintain ties with the Office of Advising and Orientation, Admissions, and Financial Aid to keep abreast of changes in institutional policy that might affect their advisees. Faculty have been extremely cooperative, giving generously of their time to give workshops for the program.

The Retention Component. This component of CORE-SAA was established in 1981, after the Outreach Component. CORE-SAA began with the outreach effort and then, as this grew and was successful, the need to establish a component dedicated to the retention of students who were recruited became apparent.

Funded, as is the Outreach Component, with special monies from the Chancellor's Office as well as some funds from the President's Office, the Retention Component is physically located in the Learning Assistance Center (LAC). Although the final responsibility for this unit resides with the Division of Student Affairs, the Retention Component's instructional activities are under the daily supervision and coordination of the Director of the LAC (who, in turn, is under Academic Affairs).

The major goal of this component is to increase the successful degree completion of historically underrepresented students. To this end, it provides a variety of services and activities in close cooperation with the other SAA components as well as with other special services programs, faculty and staff. The three main activities of the Retention Component are:

- Peer Counseling, where graduate students counsel freshmen, transfers and students on probation;
- The Faculty Referral Program, whereby students are referred by faculty for tutoring services; and
- The Special Retention Advising Program that provides credit courses for students on academic disqualification.

When the program first began it was strictly a peer counseling program. Then the activities gradually changed and expanded to include other services, such as the faculty referral system and the class for students on academic disqualification.

The staff consists of two retention specialists, two peer counselors (half-time), and two tutors (ten hours a week). The retention specialists' main duties are to teach classes, conduct study skills workshops, and counsel students. One of the retention specialists also is the Coordinator of the program and is responsible for the yearly report. In addition to counseling, the peer counselors also assist the tutors in tutoring in English, writing, and math.

Participants in the Peer Counseling Program are usually students who have been recruited through the Outreach Component. Upon receiving a list of these students (already admitted) from Outreach, Retention sends them a letter advising them of the services available as well as a form on which to indicate their particular needs. Students who respond are put on the peer counselor caseloads and typically will spend a year in the program where they receive counseling and instruction in test-taking and study skills as well as other areas such as time management. At the end of this period, if they are doing well academically, they are put on inactive status to make room for the next group. However, if they are on probation (if their GPA falls below 2.0), then they remain in the program. During the 1983-84 academic year, the Peer Counseling Program had a caseload of 202 students, of whom 42 percent were Chicano, 13 percent Black, and 21 percent White.

The Faculty Referral Program operates on the premise that faculty, staff and students cannot be expected to know all the various programs and services on campus. The system sets up a central unit which links individuals on campus with appropriate services and programs. Faculty are advised about the services the system provides and urged to refer needy students to the system either individually or via a roster. (Students have also been known to refer themselves.) Referral forms are filled out by the faculty member. Once this form is received, the Retention staff calls the student, then follows this up with a letter. When the student comes in, his/her needs are assessed and he/she is referred to the service best able to meet his/her needs. Records of the referral action and its outcome are kept and a copy sent to the faculty member responsible for the referral. Since this service depends on faculty response, a great deal of effort has been made to publicize the system. This has been done through presentations at departmental meetings, talking with individual faculty, and, most recently, letters and program flyers. During 1983-84, a total of 406 referrals were received. Of these, 311 students (77%) responded. Of those referred in Spring 1984, 10 percent were Black, 30 percent were Chicano, 35.5 percent White.

The Retention Advising Program assists academically disqualified students to improve their academic standing through a two-unit course, "College Planning Skills." (A disqualified student is one who is placed on probation for having a GPA below 2.0 and who fails to meet the contractual conditions imposed by the institution, or one who has a certain cumulative deficiency on either the overall or CSUF record.) The Admissions Office includes a letter of invitation to this course, together with other materials, with their standard letter to students on academic probation. Students who enroll in the course are given a Study Attitudes and Methods Survey and a Needs Assessment and a Study Style Profile during the first week. The course focuses on the development of effective college planning and study skills. During the academic year 1983-84 eleven sections of the course were taught (four in fall 1983 and seven in spring 1984). Enrollment for the academic year usually averages 175 students.

The year-end evaluation report for this component for 1983-84 showed that students who used the program's services withdrew at a lower rate than students who did not. The mean GPA of students who took the College Planning Skills course increased while the mean of their deficiency points decreased. An overall increase in grade point averages, enhancement of academic standing, and an increase in student contact were the result of the 1983-84 activities of this component. In the opinion of administrators and staff, the component's effect on the institution has been to enhance faculty participation and interest in SAA's activities and to obtain faculty support for minority retention efforts. As for students, when interviewed they were extremely supportive of the programs. One even suggested that the College Planning Skills course be made mandatory for all freshmen. Students regretted that this course was only available to disqualified students and felt that other students should have the benefit of such a course.

Educational Enhancement Component. This component attempts to increase faculty awareness of the needs of minority and non-traditional students. It has sponsored Undergraduate Academic Advising Conferences that included a workshop on advising minority students, a Black staff-student mentorship program that paired 30 students with 11 staff members, and a Chicano Student Leadership Program where 50 students were selected to participate in leadership skills workshops.

The Academic Advising Conferences have been credited with having increased faculty members' appreciation of the uniqueness of the minority and the non-traditional student as well as having developed new policy for academic advising. The institution hopes to sponsor many more activities aimed at faculty development in this area during the coming academic year.

The California State University at Fresno has been a leader of the CSU system in developing the CORE-SAA Program. Many have credited this program with being on the "cutting edge" of new strategies and techniques for recruiting and retaining minority students. Whereas the EOP has primarily worked with and assisted special admissions students, there had never really been any concerted efforts to recruit and retain the regularly admissible minority student. CORE-SAA fills this gap.

The Learning Assistance Center. This Center, in which the Retention Component of CORE-SAA is located, was established in 1981 to coordinate and house remedial and developmental instructional activities on campus. Although not focusing on the assistance of minority students, the LAC provides support and services to many minority students, primarily through a federally funded Special Services program for 225 students from economically and educationally disadvantaged backgrounds or students who are first generation college goers and/or limited-English proficient. The program's services focus on enhancing the retention and graduation of these students who are, for the most part, Hispanic. Three staff members provide reading, writing and study skills instruction as well as individualized, independent work with students. Through the PASS program (Progress and Advancement through Special Services), the Center works closely with other equity programs such as CAMP and HCOP and encourages them to send students who meet the Special Services criteria for basic skills development, since many of these programs do not have such an instructional component.

Another component of the LAC is a tutorial service that provides tutoring in fifty different academic majors. The Center also offers non-credit refresher courses and test preparation in many of the frequently administered examinations.

The Educational Opportunity Program (EOP)

The EOP provides the services for "special admits" that CORE-SAA does for "regular admits." On the Fresno campus, EOP started out as an experimental program in 1967 with 17 low-income minority students whom the university brought in for advising. The program did not officially start until 1969 when legislation was passed to establish Educational Opportunity Programs in the State of California. By 1970, most campuses in the system had EOP's. The program comes under the jurisdiction of the Division of Student Affairs.

The major goals of EOP are to provide access to higher education for minority, low-income students, and to provide support services throughout their undergraduate education to graduation. Support services include career counseling, personal counseling, and tutoring that are provided either by EOP or by other special services programs on campus.

The EOP staff consists of the Director; the Assistant Director; the Academic Service Coordinator who oversees the tutorials, learning skills, and works with disqualified students; the Assistant to the Academic Service Coordinator; five counselors who do the personal counseling and oversee different functions of the program; three full-time clerical staff; and 40 to 50 students who work part-time in various capacities--from peer adviser to data entry.

EOP works very closely with SAA and CAMP in coordinating recruitment. There is one main counselor who works at outreach with high schools and each of the other counselors is responsible for outreach in several schools. The federal Educational Opportunity Center is an integral part of their outreach effort as well. Because the majority of EOP students come from the central valley area, the program attracts relatives of previous students as well as friends who have heard about EOP.

Participants must meet certain criteria in order to enroll in the program. They must come from a low-income household (the cut-off varies with family size); their parents must have less than a baccalaureate degree; they must have a high school GPA of at least 2.0; they must be residents of the State of California; and they must have completed eight semesters of college preparatory English and four semesters of college preparatory math. Other factors taken into account in the selection of participants are test scores, motivation, and potential to succeed in college. EOP students who qualify for financial aid may receive an EOP grant for up to $1,000 per academic year.

Once students are selected, they come in for an orientation session to assist them in selecting courses for the fall term. There is also a summer program for incoming new students during which they live on campus for 2-1/2 to three weeks in the dorms. After classes have started, they are required to go to the EOP office for a weekly meeting with their advisors who monitor their progress. Tutoring and counseling are available on an as-needed basis. Contacts with advisors and with other service providers are recorded, as are academic records and attendance at the weekly meetings. Participants stay with the program until they graduate--an average of five years.

As a state-funded program, EOP has reporting responsibilities to the state such as demographic information on new students, information on the student services provided, and student class levels. This data base is updated on an annual basis. In addition, several tracking studies on students have been done as well as two or three system-wide evaluations of EOP programs. Although the graduation rate of the participants is the number one indicator of success from the point of view of the Chancellor's Office, the program also looks at retention rates, GPA and units completed per semester. In the eyes of some administrators, the success of the program can also be measured in terms of its ability to take students from disadvantaged backgrounds and help them break the poverty cycle and their dependence on public aid.

The program presently enrolls 1,050 students. Four years ago the program had 750 students. This increase is due as much to increased retention as to increased admission rates. Sixty-seven percent of participants are Chicano, 19 percent are Black; five to six percent White, two to three percent Native American, and four to five percent Asian.

Its impact is significant. In 1965 there were less than 200 minority students on campus. It was not until the EOP was established that minority students began to enroll. Currently one third of the Black and Chicano students on campus are EOP students. A third of the students who apply to EOP are admissible through regular admissions, but they see the program as a vehicle for doing well in college and wish to take advantage of the services it offers. With 1,050 students out of a total enrollment of about 16,000, EOP has one sixteenth of all students as well as an even larger proportion of the minority enrollment.

The program's impact on the students it serves is especially great for those students who attend the Summer Institute. Data show that graduation rates are higher for summer participants and they seem to maintain their ties with the program during their college years.

Other Special Programs

In addition to the two programs described above, there are a number of other programs on campus that work to increase the access and retention of minority students. Since the focus of this report is on undergraduate retention, only those programs that deal with this level will be described. These are: CAMP (The College Assistance Migrant Program), HCOP (the Health Careers Opportunity Program), and MEP (the Minority Engineering Program).

The College Assistance Migrant Program (CAMP)

With funding from the Office of Migrant Education Programs, U.S. Department of Education, CAMP was established on the CSUF campus in 1981 to make up to 125 first year students from migrant or seasonal farmworker backgrounds aware of the options and resources available to them. A second goal of the program is to provide support services in order to increase freshman retention for this target population. The program is under the Division of Student Affairs.

Within the CSUF service area there are 1,000 migrant students graduating from high school. To be eligible for the program students have to be considered seasonal or migrant farmworkers or dependents of farmworkers, and they must be full-time freshmen. CAMP also specifies criteria that define the term "seasonal farmworker." The program provides personal and academic counseling, career advisement and exploration, tutoring in subject areas, referral services, financial assistance (stipends), basic skills remediation, and enhancement.

Most of the recruiting is done through the migrant counselors at the high schools. The CAMP recruiter visits the schools with EOP, SAA, or Office of Relations with Schools recruiters and counsels the migrant students. When those students apply to the university and are accepted, the Admissions Office informs CAMP and they send them an intake form and invite them to apply to the program. The program has no eligibility criteria other than those cited above and those required by the university for both special and regular admission. Because many of the students are eligible for both CAMP and EOP, CAMP often advises these students to apply to EOP. CAMP is funded on a yearly basis and only works with the student for one year, whereas EOP is committed to supporting the student until graduation.

As soon as possible, the student meets with his/her counselor and provision of services begins and continues throughout the year. The counselor keeps a log of student contacts together with academic records such as transcripts, course of study, schedule of courses.

The program has served 350 to 400 students since 1981 and has maintained a freshman retention rate of 80-85 percent. A study of freshmen conducted through the Office of Migrant Education found that 80 percent of the students who finish their freshman year go on to finish college. This is why the program concentrates on the first year. According to one of the counselors, "These are very special students. They have special problems, but many of them have the motivation and perseverance to make it through college." CAMP is graduating its first six or seven students this year and hopes that the institution will institutionalize this program. It feels that "the only way [the university] is going to increase FTE's is through minority students, because they're a growing population in California. They could get a lot of students through CAMP and other programs like this." The program staff feels that the administration is supportive of their efforts.

The Health Careers Opportunity Programs (HCOP)

The campus has two health area programs--the premedical program and the allied health program funded by HCOP, a federal program. HCOP funding for the premed program, which began in 1981, has ended; and the program has been funded for the past year by CSUF and the University of California at San Francisco (UCSF). The allied health program is currently being funded by HCOP.

The premedical program developed out of a need perceived by the medical school at UCSF to improve the provision of medical care in the San Joaquin Valley. They decided that the best way to do this would be to enlarge the pool of minority medical students who came from the valley, because research showed that physicians from the valley tended to establish practices there. CSUF collaborated with UCSF on the proposal which was funded by HCOP, with CSUF providing the undergraduate training component. The program reports directly to the Dean of Natural Sciences.

The major goal of the premedical program is to increase the number of qualified minority students applying to the health professions schools--medicine, dentistry, optometry. This goal has recently been expanded to increase the number of students studying in the hard sciences.

A staff consisting of a director, a counselor, one clerical person and two faculty advisors provide services which include a summer program, advising, tutoring referral, MCAT preparation, speakers, field trips to medical schools in the state, and placement into summer programs around the country.

Participants are recruited from private high schools with a high concentration of minority students. The program has established relations with a network of counselors who identify potential participants at their high schools. Information is also sent to ninth and tenth grade classes. In addition, every minority student who is admitted to the university and who is interested in a health profession is invited to the program. Selection of participants is made on the basis of an application, two letters of recommendation, transcripts, and an interview. The program seeks students with a B average in science and math courses. Program staff also look for candidates who are committed to the health professions, who will stand up to the rigors of a premedical or a prehealth education, and who have some sense of community and a desire to serve that community.

Students begin their participation in the program with the summer program consisting of five weeks of introduction to the health professions, concepts in science, basic skills, visits to hospitals, and a heavy dose of counseling. Since advising is done by faculty advisors, and not only is information imparted in this process, but a relationship is established with faculty that will ease the student into the first year of college. Students then meet with the advisor at least once a semester. Students' work in math and science classes is monitored on a individual basis through contact with professors in the various classes.

Other activities and services include an MCAT (Medical College Admission Test) preparation class, assistance with the medical school application, speakers who can serve as role models, field trips to medical schools and placement into summer programs around the nation. Records kept on students include their progress, major, transcripts and other academic records, the extent of their participation in HCOP activities and contacts with their advisor.

The premedical program has not been in existence long enough to see many of its students accepted to medical school. However, last year, of CSUF White students, two were accepted and 20 rejected, whereas four HCOP participants were accepted and one rejected. "Although these figures are gratifying," says one program staff person, "personally, I measure it in just the students going here. We have students going here who could not have gone here before or graduated or gone to medical school."

The effect of the premedical program on CSUF has been to increase the number of minority students majoring in the sciences and taking science courses. The program has also had an effect on the science faculty. Faculty members are impressed with the HCOP students. According to a faculty member, the program has turned around the thinking of many faculty members with regard to the performance of minority students in special programs. They now see that these students are doing well in hard science courses and some of them are even getting into medical school. Program personnel feel that one of the things that has made the premedical program successful has been the cooperation of the faculty.

As this phase of the premedical program ends and it becomes institutionalized, the allied health program will begin. As of fall 1985, minority students in allied health will be receiving support through a special HCOP-funded program in the School of Health and Social Work.

Minority Engineering Program (MEP)

This program started as an offshoot of MESA, which exposes talented minority high school students to careers in engineering and math. MEP began

2-1/2 years ago on the CSUF campus with funding from the MESA statewide office. Organizationally, it is under the Vice President for Academic Affairs through the Dean of Engineering.

MEP's goal is to increase the number of minority students graduating in Engineering and Computer Science. Students are recruited from the area high schools through counselors and math teachers at the schools. MEP hosts activities for promising potential students such as lab demonstrations, exposure to engineering students, etc. Also, they approach all minority acceptees to the Engineering program at CSUF and invite them to participate in MEP.

Once a student has been admitted to the university, MEP assists them with housing and financial aid applications. Students who have been admitted to the program must also participate in the Summer Bridge program which MEP holds with HCOP, where their skills and academic preparation are assessed and remedial work given where necessary. Once classes begin they are required to take a study skills course for engineers. Other approaches the first year include the teaching of group study techniques, the grouping of students to create a support network, the fostering of student groups, professional societies and the interaction of those student professional societies with industry. Other elements that the program feels contribute to success are the clustering of students in a particular class, such as the entry level calculus class. An upper division math major is then hired to sit in on that class and then meet with the MEP students to instruct them in group study techniques as well as review the material. This is done in Fortran, math, and chemistry classes. The students' first semester, then, is usually very successful, whereas for most minority students that first semester is the biggest drop-out point.

Students stay in the program until they graduate, which is an average of five years. Since MEP has only been in existence for 2-1/2 years, it has not been possible to conduct a meaningful evaluation. This summer, however, 65 of their students applied for summer employment with industry. There are presently 130 students in MEP.

The effect that MEP has had on CSUF has been "tremendous." The year prior to the establishment of MEP the School of Engineering had ten minority students. This year 27 minority students have been admitted and another ten are expected to be admitted. Although the academic success of students is not yet measurable, it is logical to assume that their participation in the study center increases their success in class. As for contacts with industry, the National Council on Minority Engineering has given $15,000 a year in scholarships to the institution. Chevron has also given scholarship money as well as funds to make a videotape. Faculty have also been favorably impressed with the performance of MEP students.

Support Services at CSUF

The consultant on this project made a site visit to CSUF and interviewed several students from the CORE-SAA and EOP programs. The following is his description of students' assessments of support services at CSUF together with his own conclusions regarding the effectiveness of these services:

> All the students were emphatic about the value of the various student support services. At first I wondered whether they might have felt obliged to say good things about their EOP and SAA programs to an outsider who might be perceived as an evaluator. I do not believe this was the case. The students are genuinely proud of these support services, and quite sincere in saying that these programs play a central role in aiding minority, and also White/Anglo, students on campus.

The support services are *visible*, *varied*, and *effective*. Together, these qualities seem to convey to students that these programs are a *legitimate* part of the university. In part, it seems that the legitimacy and solidity of these programs may help minority students to feel that their own individual educational endeavors are therefore also quite legitimate. It is as though they gain added confidence and hope in their own efforts because of the visible importance and demonstrated effectiveness of the support programs.

Further, the presence of a wide and extensive range of support programs may help to give added credibility and visibility to *each one* of the programs. It is important to add that the two students from more affluent, professional families went out of their way to let it be known that they hadn't been in the EOP program (for students who are from "high risk" groups, in terms of their predicted likelihood of success), and that they had always done well in school. But none of the other students acted in the slightest bit defensive or insecure about having used special programs. In fact, if anything, they seem to have been proud that they were making good use of valuable resources, and were now well on their way toward successful completion of their degrees and a bright future.

An especially revealing question I asked all students was, "Can you pick out any point when you came to the realization that you were going to make it through college?" The two women from professional families said that their parents brought them up to have the confidence and expectation of success, and that they always knew they would succeed. The others seemed to have often had parental support, but formal education was not such a deeply rooted tradition in their families. Most of the students said they came to the realization that they could succeed during their freshman year, or sometime just before entering college. These students often mentioned the role of student service staff and programs in giving them the confidence that they could and would succeed. For example, one man said the realization came in his freshman year when he "saw all these opportunities--EOP, Financial Aid...." Two mentioned the encouragement given by campus recruiters from special programs. Another said, "after one semester here, looking at my grades I knew I could do it--all you have to do is read and study...[and] decide that you can put off partying."

From such comments, and other things noted by the students, I believe that low-income minority students gain crucial confidence in their abilities to succeed from any of the following three circumstances:

(1) when they see tangible opportunities,

(2) when they experience some tangible successes, and

(3) when someone, whom the student respects as someone who is in a position to know, believes in them and clearly acts with the conviction that the student can and will succeed.

The students frequently referred to the importance of things feeling familiar to them. For example, the Summer Institute helps students to get acquainted with people on campus (including peers), to learn how professors teach, to learn how the library works, etc. Similarly, the pre-college efforts of school districts and the college, alike, have helped some of these students to anticipate and plan for their college experiences. (It is worth adding that many of these students have had to overcome the low expectations that high school counselors often had for them.) The students often noted that at Fresno State the "red tape" doesn't seem overwhelming or mysterious, and whenever necessary, they can go to support staff for help. The students quite commonly said that the support programs help them to feel like they are part of a family.

The students also indicated that faculty are generally approachable. One said that "a lot of faculty make me feel like I'm at my house." Faculty are often friendly and accessible, without being "buddy-buddy." They support students if they know the student is really trying. The students feel confident that almost all faculty will pass them if they are really trying to learn and are "staying with it." There is an institutional expectation that faculty will have at least five open office hours per week, although some don't adhere to this. And of course, some faculty are aloof, insensitive, or prejudiced. One student commented on the racism of one faculty member, who, when giving her an "A," added that she must have gotten her ideas from another student. But this same student feels that many faculty are quite open and accessible.

The academic departments aid and motivate the learning of all students by sponsoring extra-curricular, career/academic activities in their particular fields of study. Often, faculty get to know students through student organizations in the department. A number of faculty encourage students to form study groups to help one another. One student stressed the value of these study groups to her success in college (she is planning to go on to graduate school). It seems that these groups are sustained by the cooperative and motivated efforts of the several participating students, without further faculty assistance.

Summary

The access and retention activities of the California State University at Fresno represent a concerted effort beginning from the interpretation of its institutional mission and the setting of goals by the top administrative personnel under the strong leadership of the President, to the implementation of these goals by specially designated units within the university. A unique feature of this effort is the extent of coordination among the various programs and administrative units responsible for these activities. This may be due, in part, to the Outreach Coordinating Council which includes representatives from all the special programs and which coordinates outreach activities to avoid duplication of effort. It is also due, in large part, to the strong leadership of the President (and top administrators), the dedication and concern of the directors and staff of the programs, and the cooperation of the faculty. As one top administrator explained in describing the close relationship between the Office of Academic Affairs and the Dean of Student Affairs: "Sometimes we go the rounds on how things should be effected more efficiently, sometimes we discuss concerns that one or the other has with regard to recruitment or retention, but in the long run I think the dialogue is there. And that's been something that has not occurred overnight, but it's something that has occurred over a number of years because it's not a naturally marrying of two offices. It's been a tough job to get those things working out properly. And it's really personalities, too. If you get people who want to do the best job for the university and who have the students in mind, I think it can work."

Minority Engineering Programs

Purdue University

The Institution

History and Description

Purdue University is one of the 25 largest universities in the nation. Located in America's heartland, the institution has a systemwide enrollment of 46,964 at its various campuses in Indiana, with the West Lafayette campus enrolling 31,457 (26,254 undergraduates) of these. The university was established in 1869 as a land-grant institution specializing in the agricultural and mechanical arts, and its traditional strengths have been in technology and applied science. Undergraduate instruction at the West Lafayette campus is offered through schools of Agriculture; Consumer and Family Sciences; Engineering; Humanities, Social Science, and Education; Management; Pharmacy, Nursing, and Health Sciences; Science; Technology; and Veterinary Medicine.

Purdue's schools of Consumer and Family Sciences; Engineering; Health Sciences; Humanities, Social Science, and Education; Management; Nursing; and Science admit Indiana applicants in the upper half of their high school graduating class. In addition, applicants to Freshman Engineering must have SAT scores of at least 400 Verbal and 500 Math, or ACT scores of English-19 and Math-25. Out-of-state applicants applying to the Schools of Engineering and the Veterinary Technology program must "present records that reflect the minimum of upper-quarter quality." Out-of-state applicants to Freshman Engineering must also meet the SAT or ACT minimum requirements mentioned above. The schools of Agriculture; Consumer and Family Sciences; Health Sciences; Humanities; Social Science, and Education; Nursing; and Science require that out-of-state applicants prove "upper-half quality"; while the schools of Technology and Management require academic records showing "upper-third quality."

In a state with a fairly low Black representation--about eight percent--and a Hispanic population of about two percent, Purdue has had some difficulty attracting minority students. Its essentially Midwest, non-urban image and its low minority enrollment have tended to discourage the applications of minorities from out-of-state. As one administrator said, "This is a difficult environment for minorities because there are so few of them." The undergraduate minority enrollment is about four percent; most of these students are Black.

The Admissions Office has made an effort to recruit minority students. They have concentrated on areas with a large minority population such as Cleveland, Detroit, northern New Jersey and New York City and have held "college nights" at parochial and private schools with large minority enrollments. The Admissions Office works closely with the Minorities in Engineering Program in their recruitment activities.

Institutional Climate

The West Lafayette campus is located approximately 65 miles from Indianapolis and 126 miles southeast of Chicago. It occupies 647 acres and contains 135 principal buildings. (There are four smaller campuses scattered throughout Indiana.) For a campus this size, the atmosphere is surprisingly warm and friendly, with a decided emphasis on the provision of services to the undergraduate student. Administrators, faculty and students who were interviewed felt that the campus was conservative, friendly, and extremely competitive, and that students were serious and hard-working "but not deadly." Although the curricula are very demanding compared with most state universities, students also manage to have fun and enjoy themselves.

Since Purdue is a school that is overwhelmingly White in an area where there are few minorities, the overall institutional climate becomes an important factor in recruitment and retention of minority students. Even though it is a state institution, the university has had to recruit in other states for minority students. Students mentioned that at times the atmosphere felt "cold," but they emphasized that it was not "hostile." Students saw the Minority Engineering Program as a place where they could meet and interact with other minority students. They felt that the somewhat alien environment brought them closer together. One student mentioned that the campus, though not "bad", was "different." "Your attitude can help or hinder you. It's like the real world," said another. Students with whom we talked seemed to have a fairly realistic and accepting attitude towards their position as a minority person in a White environment. The Black Cultural Center which was described as being "one of the best in the nation" may also have helped to integrate Black students into the institutional environment.

One administrator who has been at the institution for many years believes that Purdue has solved 90 percent of the problems of overt discrimination that may have existed 10 or 15 years ago. He describes the campus as "racially neutral." Several years ago a minority student was so visible that he or she had to "live a political statement," which was emotionally exhausting. Increasing the numbers of minority students has helped to alleviate that situation. This feeling was echoed by many of the faculty and staff whom we interviewed.

The Schools of Engineering

With an enrollment of 6,000 undergraduates, the Schools of Engineering at Purdue represent one of the largest components of that institution. These schools comprise one of the largest engineering schools in the country, as well as one of the most distinguished. There are undergraduate programs in aeronautical engineering, agricultural engineering, chemical engineering, civil engineering, electrical engineering, industrial engineering, mechanical engineering, materials science, and metallurgical engineering. The Department of Freshman Engineering is the entry point for all freshmen entering engineering programs and is responsible for initial advising and counseling as well as for first-year classes. The Department of Freshman Engineering administers the Minority Engineering Program which is the subject of this case study.

Minority Recruitment and Retention in the Schools of Engineering

Recruitment and retention of minority students is a priority of the Schools of Engineering at Purdue. The Procedures Manual for Implementation of Engineering Faculty Document 3-82 (Admission to Professional Programs in Engineering) dated August 1984, sets affirmative action goals for the Schools of Engineering as follows: "The goal percent enrolled of underrepresented minority students in any program should reflect the goal of Schools of Engineering at large. Currently, this goal is approximately 16 percent underrepresented minority students (Blacks, Hispanics and American Indians)." The manual goes on to prescribe that "special attention" focusing on course selection, tutorial classes, and personal counseling be given to underrepresented minority students.

In keeping with the emphasis on minority recruitment and retention, the Office of Educational Research and Information Systems (in the Department of Freshman Engineering) maintains excellent statistical records on minority enrollment and progress. Table 1 shows the beginning freshman minority engineering enrollment over a ten-year period, while Table 2 gives the total undergraduate minority engineering enrollment. Compared to national figures

Table 1

Beginning Freshman Minority Engineering Enrollment

	Total E-1's	Total Minorities		Black		Hispanic		American Indian	
Year	No.	No.	%	No.	%	No.	%	No.	%
1974	1259	34	2.7%	27	2.1%	7	0.6%	0	0.0%
1975	1550	90	5.8%	73	4.7%	14	0.9%	3	0.2%
1976	1752	101	5.8%	84	4.8%	15	0.9%	2	0.1%
1977	1582	80	5.1%	66	4.2%	14	0.9%	0	0.0%
1978	1749	98	5.6%	81	4.6%	17	1.0%	0	0.0%
1979	1696	90	5.3%	78	4.6%	11	0.6%	1	0.1%
1980	1514	95	6.3%	80	5.3%	13	0.9%	2	0.1%
1981	1578	99	6.3%	83	5.3%	16	1.0%	0	0.0%
1982	1498	111	7.4%	80	5.3%	28	1.9%	3	0.2%
1983	1499	83	5.5%	63	4.2%	20	1.3%	0	0.0%
1984	1547	100	6.5%	73	4.7%	23	1.5%	4	0.3%

Source: Statistical Data, 1984-85, Minority Engineering Programs, Purdue University

Table 2

Total Undergraduate Minority Engineering Enrollment

	Total Engineering Students	Total Minorities		Black		Hispanic		American Indian	
Year	No.	No.	%	No.	%	No.	%	No.	%
1974	4424	91	2.1%	91	2.1%	NA		NA	
1975	4951	135	2.7%	135	2.7%	NA		NA	
1976	5843	250	4.3%	200	3.4%	46	0.8%	4	0.07%
1977	6167	268	4.3%	217	3.5%	47	0.8%	4	0.06%
1978	6512	304	4.7%	239	3.7%	61	0.9%	4	0.06%
1979	6750	308	4.6%	254	3.8%	51	0.8%	3	0.04%
1980	6660	348	5.2%	280	4.2%	64	1.0%	4	0.06%
1981	6631	372	5.6%	285	4.3%	83	1.3%	4	0.06%
1982	6605	396	6.0%	309	4.7%	82	1.2%	5	0.08%
1983	6488	358	5.5%	267	4.1%	86	1.3%	5	0.08%
1984	6396	331	5.2%	242	3.8%	82	1.3%	7	0.11%

Source: Statistical Data, 1984-85, Minority Engineering Programs, Purdue University for minority undergraduate enrollment in engineering programs, Purdue, at 5.1 percent, is somewhat below the national figure of 8.4 percent.

With regard to retention, comparison of 1980 and 1981 data on retention of Black engineering students at Purdue shows that after six semesters, these students persist at a slightly higher rate than nationally (48% vs 45%). Hispanic student retention, on the other hand, is slightly lower than the national figure (57% vs 60%). The Schools of Engineering have the highest enrollment of minority students of any school at Purdue--5.2 percent of the total engineering undergraduate enrollment and 6.5 percent of the beginning freshman class. This relatively large minority enrollment as well as a fairly high retention rate for minority students is due primarily to the efforts of the Minority Engineering Program.

Minority Engineering Program (MEP)

Overview

The Minority Engineering Program (MEP) at Purdue University represents a unique blend of components that combine several approaches to motivating, recruiting, enrolling, retaining, and graduating minority engineers at that institution. The MEP, located in the Department of Freshman Engineering in the School of Engineering, is the result of a proposal developed 11 years ago by the former head of the Freshman Engineering Department, the Director of Educational Research, and others. The goal of the program is to provide a comprehensive effort to increase minority enrollment by 25 percent each year.

Industry responded to the proposal with a number of unrestricted grants to fund a variety of activities. The funding from several industries is used for programming and scholarships, while staffing and facilities are funded by institutional funds from the Freshman Engineering Department budget.

Below is a description of the various programs, their components, and activities. The programs can be classified into two types--Pre-College and College-Level activities. The former include efforts to identify, motivate, and enroll high school students who demonstrate high potential and who indicate mathematics, science and engineering as interests. Although not all of these students who enter the field of engineering will do so at Purdue, this is an important recruitment effort. The latter focus on the retention of minority students already enrolled at Purdue.

Pre-College Activities

Seventh and Eighth Grade Summer Engineering Workshops. Formerly funded by the Sloan Foundation through the Committee on Institutional Cooperation and Midwest Program for Minorities in Engineering, this program began in 1976. It provides two one-week summer workshops for minority students who have just completed the seventh and eighth grades. The workshops are held on the Purdue campus at West Lafayette, Indiana. Participants are recommended by their junior high school counselor, math, or science teacher. Although previously limited to eighth grade students from targeted junior high schools in Indiana, the program expanded this past year to include seventh graders and students from Illinois and Ohio were also included.

Workshops provide the opportunity to participate in hands-on engineering projects, tours of engineering labs and facilities, discussions with engineering students and professional role models, as well as presentations by admissions officers on the appropriate high school courses to take in preparation for technical studies at the college level.

To date, over 700 students have participated in the workshops. Of those who have graduated, 66 have enrolled at Purdue--27 in engineering and 39 in other disciplines. The first two engineering graduates from the initial group graduated in 1983-84.

PREFACE. The Purdue University Pre-Freshman and Cooperative Education program for minorities was originally funded by the Department of Energy and was designed (in 1980) to give high school students completing their freshman and sophomore year an opportunity to experience engineering for a week at the Purdue main campus.

Participants, who are residents of Indiana and neighboring states, are recommended by high school teachers and counselors. They may also have been participants in the Seventh and Eighth Grade Summer Workshops. Although the content of the week-long workshop program is similar to that of the seventh and eighth grade workshops, more emphasis is placed on motivating students to consider career choices as they relate to their values, abilities and goals. Course selection during the remainder of their high school career is also discussed.

So far PREFACE has worked with over 191 students, 120 of whom have graduated from high school. Of that group, 13 percent have enrolled in engineering at Purdue with another 11 percent choosing other majors at Purdue.

MITE. The Minority Introduction to Engineering program was begun in 1975 under the sponsorship of the Eastman Kodak Company through the Accreditation Board for Engineering (ABET). For the past three years it has been funded by various companies, with limited ABET participation.

The program is for high school juniors who are identified through the College Entrance Examination Board and selected on the basis of their PSAT scores, high school grades, and expressed field of interest. Participants are typically Indiana residents or from surrounding states. The week-long program of activities is designed to provide students with the opportunity to meet and interact with other minority students who have similar interests and goals, and to learn about engineering at Purdue while evaluating their own potential.

During 1983-84, 29 percent of the 49 students participating in the 1983 MITE program enrolled in engineering at Purdue, with 11 percent enrolling in other majors at that institution.

Target Cities Luncheon Programs. These are special luncheon programs for academically talented high school juniors and seniors as well as their teachers and counselors in selected cities throughout the midwest. Presentations focus on programs and opportunities available at Purdue Schools of Engineering and in the field of engineering in general. Emphasis is also placed on high school preparation and admission to college. These programs use Purdue minority engineering students as well as engineers as role models.

Target Cities Luncheon Programs have been presented in Chicago, Peoria, Cleveland, Indianapolis, Fort Wayne, St. Louis, and Des Moines. Over 100 high schools, more than 400 students, and several high school personnel have participated.

PROMISE. Purdue's Recruitment of Minorities Interested in the Schools of Engineering program works with talented juniors and seniors. Participants are recruited through a number of sources, including the Target Cities Luncheons and MEP's network of teachers, counselors and students. Students who were unable to attend the MEP pre-college summer programs may attend this Fall program. Former participants in the Seventh and Eighth

Grade Summer Workshops who are currently juniors in high school are also invited to attend this program, which serves as a reunion for this group.

During a two-day on-campus workshop, participants are given information on admission and financial aid procedures, the freshman engineering curriculum, a tour of the campus and engineering labs, and an opportunity to meet faculty, staff and students.

Engineering Preview. This is a 2 1/2-day program designed to encourage minority students who have been admitted to Purdue to enroll in the freshman engineering program. Initiated in 1975, the program is sponsored in conjunction with the Purdue Chapter of the Society of Black Engineers. Students are encouraged to attend this activity with their parents.

This is one of the most successful recruitment programs, with 88 percent of the 42 students who participated in 1983 enrolling in the Purdue Schools of Engineering for the 1984-85 academic year.

Teacher/Counselor Workshops. An outgrowth of the Seventh and Eighth Grade Summer Workshops, this activity is designed to inform junior and senior high school teachers and counselors of activities and developments within engineering education and the profession in general. It also provides a network and recruitment resource for potential engineering students and Minority Engineering Program participants.

Phone-A-Thon and Letter Writing Campaign. This activity has been conducted for the past two years in conjunction with Engineering Preview to supplement recruiting efforts. Minority engineering students at Purdue contact prospective minority engineering students by letter or telephone to offer their services in answering questions about the institution or about other related concerns.

Freshman Merit Award Program. Since 1974 a number of industries have sponsored these grants which provide awards from $1,000 to more than $3,000 in order to attract, as well as aid, highly qualified minority engineering students to Purdue.

Other Activities. During the summer and fall months large quantities of engineering career literature as well as financial aid and admissions information on opportunities at Purdue and within the Schools of Engineering are mailed to prospective minority students. An impressive array of recruitment materials, including brochures, posters, flyers, slide presentations, and other methods, is developed and disseminated throughout the year.

This summer (1985), as part of a new program, PREP (Preliminary Retention Engineering Program), MEP hosted nine students who will be entering Engineering freshmen in the fall of 1985. PREP is a six-week intensive preparatory program which focuses on mathematics, English composition, and coping skills. Its purpose is to assist students to complete their freshman year on schedule and those students who will derive the most benefit from extra preliminary preparation are selected for the program.

College-Level Retention Activities

The MEP staff maintains contact with minority engineering students once they are enrolled at Purdue by providing the following support services: individual and career guidance sessions; orientation and retention seminars; incentives for academic performance through the Continuing Student Awards program; employment of students in MEP; information on employment and scholarship opportunities from the MEP newsletter; and a positive working relationship with the Society of Black Engineers.

General Academic and Personal Counseling. Counselors in the Department of Freshman Engineering, as well as in the professional school, advise students individually concerning course selection and career plans. The Counselor/Tutorial Program, which is open to all students, provides individual and group tutoring to incoming freshmen; 50 percent of those served are minority students. Minority students are also encouraged to take advantage of additional services offered by MEP, such as:

Minority Engineering Student Seminar: Engr 195-M. This 16-week course is designed to assist entering minority engineering students to make the adjustment to the university environment. It also encourages the exploration of the career opportunities in the various fields of engineering.

Techniques of Academic Problem Solving: Engr 195-R. This course was developed in 1981 as part of a Purdue/NACME experimental retention project to assist upper division minority engineering students to improve their academic performance, particularly in certain sophomore and junior level math, science and engineering courses. As part of the course, individual and group tutoring is provided by graduate students, while undergraduate peer/counselors provide supplementary tutoring and personal counseling.

The project was designed to increase the retention of minority engineering students (juniors and seniors) from 50 to 60 percent over a one-year period. Another major goal was to increase semester grade point averages by at least one-half point compared to their grade point average of the semester before. Results of the first year (1981-82) were quite favorable, and demonstrated a significant increase in grade point averages and retention, especially for students enrolled for two semesters.

Tutorial Service. Tutors who are junior, senior, and graduate engineering students are employed through MEP to assist minority engineering students. They also identify and disseminate academic resources available throughout the engineering schools as well as the university.

Incentive and Recognition Awards. Monetary awards which vary in amount and number (depending on the availability of industrial support each semester) are given to students who maintain outstanding grade point averages and demonstrate leadership ability.

Advisor to Society of Black Engineers. The close interaction of MEP with NSBE provides an opportunity for members to develop leadership and group interpersonal skills. This group also provides a channel for information on career and professional opportunities.

Other Activities. Other support activities administered by MEP include: maintaining relations with industry, proposal and report writing, fund raising, maintaining statistical data, and representing the program on various university and national committees, panels and workshops.

Staff

The staff of MEP consists of one full-time director and one assistant director, who is half-time. There are one full-time and one part-time secretary, as well as two undergraduate student helpers and four undergraduate student tutors. The following is a description of the responsibilities of each staff member.

Director. The Director has the major responsibility of administering the programs. She is responsible for all main activities--recruitment, motivation, and retention. She also prepares reports as they are required from the various industries who fund the programs as well as proposals to secure more funding. She sees the major goals of the program as "motivating, recruiting, admitting, retaining, and graduating qualified [minority] engineers," and sees her role as doing whatever is necessary to facilitate this process. The director believes that one way to accomplish this is to encourage students to be "mainstreamed into this university, to interact with everybody who is here." She is opposed to "putting students into this program and keeping them here," and maintains that they need to experience the real world. The present director has held that position since the inception of the program.

Assistant Director. The Assistant Director sees his role as that of facilitator. His is a half-time appointment; the other half of the time he works in the Freshman Engineering Counseling Program. As Assistant Director, he oversees some of the programs and has run some as well. He does a lot of proposal and report writing, and develops brochures for the recruiting programs. He stated that since the program was so understaffed, the staff does whatever they need to do. There have been two previous assistant directors, whose duties differed somewhat from those of the present Assistant Director who has been on the job since this past summer.

Clerical Staff. The two secretaries perform regular clerical tasks required by the programs. They also deal with routine student requests for information.

Student Assistants. Student Assistants are volunteers in the program. Two of them help in a general capacity. Four are student tutors who assist students in their coursework and research and disseminate information to the minority engineering student body regarding additional academic resources available throughout the engineering schools and the University.

Other Volunteer Assistance. The program relies heavily on volunteers for assistance in their activities. Faculty members are called upon regularly to give presentations at workshops, and members of the administration are also asked to conduct workshop sessions on such topics as financial aid or admissions. Student volunteers have been especially helpful and have participated enthusiastically in activities such as Preview, where they act as a "host" to a prospective engineering student during a two-and-a-half day program.

The staff is composed of dedicated, sensitive, and caring individuals who are willing to work hard in order to promote the goals of the program. The leadership of the Director is a vital ingredient in the success of the programs. All the institutional personnel and students interviewed concurred in feeling that the Director was an extraordinary person with total dedication to making the programs work. The student volunteers seemed extremely enthusiastic and felt that they were helping other students just as they had been helped and that it was only natural that they should volunteer to do this.

Participants

The nature of the participants has changed over the years in that the preparation and qualifications of the students have improved. Some of the MEP staff have also seen a change in attitude. Students in earlier years were, in the Director's words, "hungry." They were not as well qualified and therefore less self-assured but more eager to learn. There was also more of a "sense of community" among the earlier students.

In terms of numbers, participants in each of the programs seem to vary from year to year and there does not seem to be any identifiable trend. A decline in the undergraduate minority engineering enrollment (396 in 1982 vs. 331 in 1984) seems to be attributable in part to a decrease in the number of beginning freshmen who enrolled in the two previous entering classes (83 in 1983 and 100 in 1984, compared to 111 in 1982).

Participants in the Engineering Preview during the spring of 1985 were very impressed with the services offered by MEP. Those interviewed expressed the desire to attend Purdue. Their parents commented on the excellent reputation of the institution's Schools of Engineering as well as the pleasant surroundings and well-kept facilities.

Students currently enrolled at Purdue who participate in the college-level activities feel that the program has helped to make the transition from high school to college easier. They mentioned the usefulness of the program in introducing them to available resources, providing services, bringing them closer to other minority students in engineering, and providing "moral support as well as academic support." One student who is now a junior (but who had participated since the senior year in high school) commented: "I couldn't have made it [without MEP]." All students mentioned the selfless dedication of the staff, particularly the Director, as being a very important ingredient in the program's success.

Perhaps one of the most telling indications of participants' appreciation of the program is their willingness to volunteer their help. Volunteers, both currently enrolled and graduated, are used extensively in many roles--"hosts" for incoming freshman students, role models, speakers. Some of the ex-students who are now engineers come many miles in order to speak at some of the activities and to share their experiences with present students.

Evaluation

Most of the programs described above have been evaluated by the Office of Education Research and Information Systems in the Department of Freshman

Engineering. The director and some of the staff in this office maintain a keen interest in the recruitment and retention of minorities and women in engineering and science, and the office works closely with the Minorities in Engineering Program. The director was a member of the National Research Council Task Force on Minority Retention in Engineering and is currently a member of the NSF (National Science Foundation) Committee on Equal Opportunity in Science and Technology. He and his colleagues have published several studies on minorities and women in engineering and science, including evaluations of MEP.

To avoid confusion, the effects of those programs that have been evaluated have been included in the description of the program. Evaluations are formative, as well as summative, and are conducted on a yearly basis. These may take the form of yearly reports that are required by funding groups.

Relationship to the Institution

The Institution. MEP has received strong support from the University, including the former Dean of Engineering, the present Dean, and the Head of the Department of Freshman Engineering. One top administrator confirmed that the program had "very good" support from central administration: "[The MEP] program is key to us." According to one administrator, the administration had decided to concentrate efforts to increase minority enrollment and retention in certain areas, and engineering was one of them.

The Administration. Administrators who were interviewed regarding their impressions of MEP and its students, were unanimous in praising the program for doing an excellent job. They believed that it fit perfectly into the overall institutional goals. All thought that it had helped minority students to enroll in and graduate from a very demanding program.

Many felt that by increasing the presence and visibility of minority students on campus, MEP had made faculty and the institution as a whole more aware of the needs of minority students on campus. One administrator remarked that it had "broadened our sensitivity to the special needs of special students, no matter who they are."

The Faculty. Engineering faculty with whom we spoke noted that there was great variation in the performance of students in the MEP program. Many of the students suffer from poor preparation in high school, but many are capable of performing at least adequately, given some assistance. One faculty member also mentioned that the best student in one of his classes had been a minority student. A professor commented on the change in the quality of participants, and mentioned that although earlier participants had had weak backgrounds, almost all the students during the last three or four years have been "good, solid students." Some faculty said that they were aware that the institution might seem an alien environment to many minority students and credited MEP for helping to make these students feel more at ease. Another professor acknowledged that the assistance given freshman students by the program was very helpful but expressed concern that without the continuation of the services students would find it difficult to make the transition beyond freshman engineering.

The Director of MEP credited the institution, including individual administrators, with being supportive and cooperative. Outside of the Schools of Engineering, she interacts closely with the Admissions Office, Financial Aid, and Housing. She also has found the Engineering faculty to be very cooperative and mentioned that she had called on them on several occasions to give presentations or participate in program activities.

Summary

The Minority Engineering Program at Purdue University represents a commitment on the part of the Schools of Engineering as well as the University to increase minority recruitment and retention in the engineering programs. It is probably the most focused and successful effort of its type at Purdue and enjoys the support of the institution, the commitment of a dedicated staff, and the assistance of the institutional research office of the Freshman Engineering Department. There has also been a substantial investment on the part of industry. The difficulty of this undertaking in a state with very low minority population and at an institution with low minority enrollment is considerable. The success of MEP under such circumstances is encouraging, if not remarkable.

In spite of the relative success and comprehensive nature of MEP, its Director and the Director of Educational Research are concerned about recent developments in admissions and GPA requirements in engineering programs both nationally and at Purdue, and fear their possible negative impact on recruitment and retention of minority engineering students. They are presently exploring ways to address problems that may arise due to these developments.

Although most of the retention services provided by the MEP focused on the freshman year, emphasis on retention has now extended to graduation. New efforts at retention have enlisted the faculty and staff in the professional schools. Designated faculty and staff in each of the Schools of Engineering will be working closely with the staff in the Department of Freshman Engineering to increase minority retention all the way through to graduation.

The University of North Carolina
at Greensboro

The Institution

The University of North Carolina at Greensboro (UNC-G) is one of 16 institutions in the University of North Carolina System, and is one of the few granted authority to offer doctoral programs. It hails as one of the premier public institutions in the state of North Carolina. In 1963, the University became coeducational following seven decades as a liberal arts college for women. In the 1960's and 1970's the University grew in size and scope. By 1980, its student enrollment had grown to its current size of over 10,000 students, with over one-quarter being graduate students. UNC-G maintains a reputation for academic excellence. It continues its longstanding commitment to the liberal arts in undergraduate education and has recently established a new masters program in liberal studies. This tradition is enriched by undergraduate and graduate preparation in many professional fields of study. The University offers the baccalaureate degree in 69 majors, the masters degree in 50 fields of study, and doctoral degrees in 13 areas of study. UNC-G is especially strong in the humanities, business, human services, education, and the fine arts. The University of North Carolina at Greensboro is located in the triad region of Greensboro, Winston-Salem, and High Point with a population base of 391,200. Greensboro, with a population of 182,000, enjoys the recent acclaim of being ranked "number one" among all cities in the USA for overall quality of life. In addition to UNC-G, Greensboro is the home of four other senior colleges and universities--Bennett College, a small historically Black private college for women; Greensboro College, a small private liberal arts institution; Guilford College, also a private liberal arts institution; and

North Carolina Agricultural and Technical State University (another of the 16 institutions comprising the UNC System), a historically Black coeducational institution with an enrollment of about 5,000 students. Within Greensboro, UNC-G is the largest and most comprehensive institution of higher learning. It serves a large segment of resident students as well as a growing population of part-time and other students, characteristic of an urban university.

Institutional Climate

The campus is part of the town, but is situated on 158-acre green, wooded area. It enjoys the atmosphere of a small liberal arts college along with the advantages of a multi-purpose university with exceptional faculty and a commitment to fine teaching and research. The older georgian buildings create an ambiance of southern charm, and the newer architecture is carefully designed to blend with the traditional themes while also reflecting the contemporary thought and character of the newer university.

Throughout the institution emphasis is placed upon serving the individual student. Administrative offices, such as Admissions, Student Affairs, Registrar, and Student Aid, are open and accessible to students. Students encounter the service units of the institutions as people able and willing to help them, rather than as a University bureaucracy filled with hurdles and barriers of institutional convenience.

The student-faculty ratio is 14 to 1. Although there are some large introductory classes, the institution is characterized by its small class size and frequent student faculty contact. Its emphasis is on good teaching and academic advising. Faculty are very interested in the students and the students sampled believe faculty to be open and responsive.

Student Body

The University of North Carolina at Greensboro projects a climate of scholarship and cultural enrichment. Consistent with its early mission as a woman's college, UNC-G currently has an enrollment that is 68 percent female. The University's emphasis on scholarship and cultural enrichment gives the institution an overall atmosphere of strong, serious, intellectual pursuit by young men and women. The 32 percent male enrollment appears unaffected by the majority female student body and past image. The average combined SAT score of the incoming freshmen is 940 and over half of the freshmen ranked in the top quarter of their high school class. About 88 percent of the students are state residents.

From the early 1960's, UNC-G has been viewed as an institution that is open and receptive to Black students. Students, both Black and White, participated in the "sit-ins" during the 1960's, demonstrating their commitment to establishing an interracial society. Blacks comprise about 10 percent of the students and other minorities about 3 percent. The institution supports the development of cultural awareness and observation of different cultural heritages of its students. UNC-G does not appear to promote cultural isolation. For example, since the late 1960's the leaders of a campus organization, the Neo-Black Society, have been active in and assumed leadership roles for other University-wide student organizations. The prevailing attitude seems to be that students, irrespective of race or gender, attend UNC-G to gain a sound university education.

Black students at UNC-G tend to be traditional-age college students (18-22) and are less well represented among the older, commuting students. A higher proportion of the Black students live in the dorms than is the case for the White students. There are 22 residence halls with 3,650 residential students, of which Blacks number about 1,000. Thus, Black students have a more substantial presence in the dormitories than they do in the classroom. Dorm life contributes to involvement in campus life and is believed to be a factor in the retention of minority students. Student Affairs has designed residence programming to enhance the quality of life at UNC-G and contribute to better intercultural and interracial relations. Such programs include social activities and student development services such as exploration, conflict resolution, stress management, etc. Programs attempt to be sensitive to the needs of Black students without singling them out.

Several faculty members and administrators indicated their belief that self-selection among the Black students who attend UNC-G contributes to good retention. Several Black students reported that they receive some pressure from Black students at the local historically Black university to enroll there, but that relations between the two schools are quite good. A survey conducted by the Office of Institutional Research reveals that the parents of Black students were less likely to have supported their choice of UNC-G than were the parents of White students.[1] We believe that these comments suggest that many Black students at UNC-G have made an independent decision to attend this institution and may therefore be somewhat more determined to succeed than others who were less committed to their decision.

Access and Retention

Access and retention of Black students are institution-wide priorities, recently made more explicit with an institutional self-examination and the appointment of an assistant vice chancellor for academic affairs to manage enrollment and to coordinate retention efforts for all student populations. Since 1973 the University of North Carolina System has been under court order in all of its constituent institutions, historically White and historically Black, to desegregate (under Adams vs. Richardson). Prior to the Consent Decree, UNC-G had the best minority retention rate of any predominantly White institution in the system. Minority retention generally equalled or surpassed that for Whites. First-year retention rates for Black females has exceeded all other groups; for Black males, the rate in the past two years has exceeded that for White males (see Table 1).

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[1] This finding is in opposition with Bean and Hull (1984), who found parental support an important contributor to persistence.

In establishing a system-wide plan for desegregation, administrators in central university offices looked to UNC-G as a model. Subsequently, as all institutions enhanced their efforts to recruit and retain minority students, UNC-G has faced much greater competition in attracting Black students. Since UNC-G's budget is enrollment-driven, recruiting and retaining a diverse student body is a practical as well as a philosophical concern. Maintaining total enrollments as well as increasing minority enrollment are

Table 1

One-year Retention Rates--Freshmen

	78-79 %	79-80 %	80-81 %	81-82 %	82-83 %	83-84 %
White Male	70	74	70	73	69	70
White Female	76	76	76	77	78	72
Black Male	69	68	63	70	74	76
Black Female	83	83	79	79	73	76

Source: Office of Institutional Research
University of North Carolina, Greensboro

matters of importance and are reflected in retention efforts throughout the institution.

UNC-G is an institution that has made minority retention a priority throughout the University and has established a successful record. This report focuses on factors that appear to contribute to this good retention rate. These factors include special efforts within regular university services--Admissions, Student Aid, Student Affairs, Academic Advising, Academic Affairs, and Departments--and the contributions of local campus ministries. In addition to University-wide policies to improve retention, there are two special projects--Special Services and a new Student Retention Project--that are specifically designed to improve retention and the academic performance of students.

Admissions and Advising

The Admissions Office and the Academic Advising Office both play major roles in the retention effort. The institution has a commitment to graduating the students it admits. By careful pre-selection, the Admissions Office admits students that appear able to succeed at UNC-G. Although each application is reviewed individually, a general "rule of thumb" for admission to UNC-G is an 800 combined SAT score with neither the math nor verbal score lower than 350, graduation in the top half of the high school class, and/or a GPA of 2.0 or better. Each year approximately 120 students are admitted who have not met the minimum criteria. They are typically first-generation college students, and/or are from economically disadvantaged backgrounds. They are referred to the Special Services Program for academic and personal support. Also each year, approximately 50 students are admitted as "special admits." Generally, those who do not meet the admissions criteria have good high school grades, but SAT scores that are lower than those generally accepted by the institution. By working with the Office of Institutional Research and keeping careful records, the Admissions Office has been able to accurately predict student success at UNC-G.

Specially admitted students who participate in the Special Services Program have high retention. The one-year retention rates for Special Services students (in good standing) is 87 percent vs. 39 percent for those students who do not participate. (The services these students receive are described in the section under Special Services.) Special Services students are considered high-risk students with potential; about 80 percent are minority students. Although these students do not meet all admissions criteria, the Admissions Office believes they have a reasonably good chance to succeed.

The Admissions Office places a high priority on attracting Black students. Recruitment of Black students includes outreach activities, talent searches, a special Black orientation weekend, fairs, and a telephone campaign by enrolled Black students. Although the major recruiting takes place within North Carolina, staff also recruit in Virginia, New York, Pennsylvania, Florida, Washington, DC, and New Jersey. There are two Black admissions officers (both are graduates) who have been very effective in recruiting Black students. Black alumni and the Black student organization (the Neo-Black Society) are also involved in this process.

Financial Aid

Another reason frequently cited for good minority retention is the careful attention to the financial needs of students and the interesting work-study experiences provided. Approximately 49 percent of all students at UNC-G receive financial aid, but 85 percent of the minority students receive such aid. Most minority students receive minority presence grants of $500. The rest of the aid package consists of loans, work-study, grants and scholarships. After all financial aid packages are distributed, monies remaining are used to reduce the loan burden of minority students. The office tries to keep loan burdens as low as possible--the average debt after four years is about $3,000.

In putting together a financial aid package, there is an effort to minimize loan and self-help and to provide good work-study experiences for minority students. Not only does this reduce loan burden, but studies show that work-study on campus enhances retention (Astin, 1975; Herndon, 1984). Staff believe that freshmen and sophomores often have difficulty managing their time, and that the structure of the work schedule helps. Furthermore, the work site often provides an additional support system. Frequently the work-study supervisor is the first to hear about a student's problem. The Financial Aid Office holds workshops for the approximately 100 work-study supervisors. The purpose of these sessions is to discuss the job skills that they should try to develop in students and to learn about University services so as to be able to advise students.

There is also a workshop during orientation for students who will hold work-study positions. It aims to teach students about office etiquette and expectations of their supervisors. A faculty member talks with students about communication skills--answering the telephone, body language, etc. A student with previous work-study experience talks to other students about dress and general demeanor.

The Financial Aid Office serves as a personal counseling and support system for students. The minority financial aid counselors have been particularly effective with Black students in helping them use the system to solve problems. They may also advise students with personal problems, such as difficulties with a roommate. The office often gets involved in individual cases when students appeal decisions on ineligibility for financial aid due to unsatisfactory academic performance.

The Financial Aid Office works with academically gifted as well as marginal students. Although there is only one competitive scholarship specifically earmarked for a minority, minorities are encouraged to apply for all competitive scholarships. The office works with high school counselors in identifying talented Black students for scholarships, and with faculty to increase Black representation in competitive scholarships for enrolled students to assure the top Black students receive the recognition that they deserve.

Student Services

Nearly everyone with whom we spoke emphasized the positive ambiance of the campus as a factor in retention. Black students are a substantial presence on campus. The Student Affairs Office tries to create a climate of openness and acceptance for all students. As one administrator indicated, "Black students know that if they have a grievance it will get dealt with. The trouble is we don't always know beforehand what the problems are. We have an advisory panel and we consult with Black faculty, but we still get accused of being insensitive."

Students confirm the impressions of administrators and staff. They indicate that the administration is usually responsive, but often does not know the needs and concerns of Black students until these are brought to its attention. For example, students assisted the administration in redefining the responsibilities to be associated with the position formally termed Assistant Dean of Minority Affairs, now designated as the Assistant Dean of Students.

Committees with students and faculty help bridge the gap between races. The administration is in frequent contact with leaders of the Neo-Black Society. Creating a multi-racial staff has been a high priority with University administration. Additionally, training sessions for faculty and staff are held yearly on matters of racial sensitivity. The University is committed to creating a truly integrated atmosphere, but as one administrator said, "We haven't perfected the elimination of racism." Although most acknowledge that there is still a certain degree of separation (for example, Black students usually eat in a particular cafeteria), overall relations are good.

Students, faculty, and administrators with whom we spoke indicated the importance of the Neo-Black Society (NBS) in attracting and retaining Black students. The Neo-Black Society is the largest student organization on campus. The NBS has a room in the student union and yearly budget from the Student Government. It promotes Black identity and culture and helps to expose the University to Black culture--such as dance, gospel singing, and Black literature. There is some attendance by Whites, but the theme is intra-racial. Black History Week at UNC-G is celebrated by several organizations on campus. NBS is also active in recruitment activities and plays a role in orientation.

Another important bridge to better relations has been the development of Black student leaders for positions outside the Neo-Black Society. Faculty and administrators identify Black as well as White students who show promise for a leadership development program that lasts about one and a half semesters. At first there was some resistance from Black students. Black leaders, particularly males, often stayed within the Neo-Black Society.

Now, however, Black leaders occupy approximately 50 percent of the student positions in institutional governance and leadership.

Academic Life

Involving students in the academic life of the institution is an essential aspect of the retention effort. This includes better advising, more contact with faculty, and additional academic support services. Several faculty members indicated their belief that more student-faculty contact in and out of the classroom would be beneficial. One program that has achieved this goal is the Residential College. This program serves 120 freshman and sophomores who take their classes in small seminars in a special residence hall. It provides close contact between students and faculty and maintains the atmosphere of a small college within a university. Minority participation in this program has been low, however. Other alternatives are to hold smaller classes--more seminars--and to provide faculty with resources to entertain small groups of students. The recent self-study within departments and the new retention effort have raised awareness of the important role that faculty and good academic advising play in retaining students.

Both faculty and staff indicate the need for more Black faculty. Non-Black faculty are sometimes attuned to needs of Black students, yet there are still differences and Black students feel they need more role models. An English professor, for example, told us that he includes Black writers where appropriate. Yet as one administrator indicated, a White faculty member is less likely than a Black faculty member to quote W.E.B. DuBois. While not a racist atmosphere, there are such subtleties that separate. The presence of more Black faculty would help. The University of North Carolina at Greensboro has placed a high priority on attracting more

Black faculty. To this end a formal network in affirmative action was developed this year whereby each College/School and Office identifies a faculty or staff member to provide leadership in minority recruitment within all searches. These individuals work together to learn and develop more effective affirmative action practices throughout the University. Also, a program called GRASP attempts to identify talented students, pair each with a faculty mentor, and encourage them to pursue graduate studies toward the Ph.D. and careers in higher education.

Campus Ministries

Several local campus ministries play an important role in student life at UNC-G. Although private and not directly affiliated with the University, these ministries are on or near the campus for easy access. Their services fill a void left by the University. The Presbyterian House (Presby House) holds weekly breakfast meetings for students that promote interracial leadership. Both students and faculty indicate that this serves an important function. St. Mary's Church plays an important role in personal counseling of Black students. The Church hired a part-time Black counselor (UNC-G does not have a Black person on its counseling staff) who was sought out by Black students.

Special Retention Efforts

Following are descriptions of the two special retention efforts at UNC-G--the Special Services Program and the Student Retention Project. Although the programs differ in their approach and target populations, both have as their major purpose enhancing retention and academic performance of students.

Special Services Program

The Special Services Program is a federally-funded and University-supported educational support program, begun in 1970. The original proposal was written under the direction of the Dean of Academic Advising. The project operates as a comprehensive unit offering all services within the program. This program, along with the Student Retention Project, is part of the special retention efforts that are monitored by the Assistant Vice Chancellor for Academic Affairs. The program enjoys strong support throughout the University. Faculty are aware of the program and compliment its track record. They view the services as a valuable resource for students who need extra help to succeed at UNC-G. The goals of the program have remained constant over its fifteen-year history: to enhance the retention and graduation rate of educationally disadvantaged students. The basic approach is to provide individual attention in both academic and personal services to increase the likelihood of success.

To qualify for Special Services, students must be first-generation college students. In addition, students must be economically and educationally disadvantaged or handicapped. Some students of limited-English proficiency can also be served.

Upon receiving a student's application to UNC-G, the Admissions Office determines if the student meets the admissions criteria. If the student does not meet all usual admissions criteria, he/she may be accepted and referred to the Special Services Program and strongly encouraged to take part in the program although participation is voluntary. Upon contact with Special Services and completion of the program's application form, the Director determines if the student is eligible to receive program services.

Approximately 120 students are admitted under Special Services criteria, but not all use the services. This past year, there were 165 participants in the Special Services Program, of whom 84 were freshmen. Approximately 80 percent of Special Services students are Black.

Services. The Special Services Program provides a variety of academic support services. The approach of the Special Services Program emphasizes individual attention in providing students with academic support and counseling services. It aims to increase self-confidence and improve academic skills. Eligible Special Services freshmen receive information in the spring before their freshman year about the services. Students are assessed in English and math to help determine the level of assistance needed. The Special Services Office preregisters the students in June for their courses and holds its own orientation. Students feel they have a base of support to help them through the University.

Mathematics instruction--Students having difficulty in math may receive instruction on an individual and/or small group basis. About 50 students per semester use this service. The mathematics specialist is employed for 20 hours per week by Special Services and is also an instructor in the math department. Her approach is to relieve math anxiety and give the students extensive practice. Three students with whom we spoke were receiving mathematics instruction and they all indicated this instruction is very helpful. One student said as a result of the instruction she is performing much better in math than she had in high school.

Reading and study skills--Students may receive assistance in reading and study skills. About 30 students each semester use this service, most of whom are freshmen. Students take a pretest to determine what they need, then a course of study that includes weekly sessions with the instructor and independent use of lab facilities and workbooks is designed according to individual needs. The goal is to increase reading comprehension, vocabulary, and study skills. Students generally show the greatest improvement in reading comprehension and vocabulary skills. Students may also come in for assistance on a less-structured basis.

Writing instruction--Students receive assistance on an individual basis in writing. The instruction is designed to meet individual needs and lasts as long as the student and instructor feel it is needed. Several freshman indicated they plan to continue using this service throughout their college careers to help them with paper assignments.

Tutoring--Tutoring is available according to student request or recommendations from the faculty and/or Special Services staff. Tutors are usually graduate students with at least a 3.0 average, and an A in the subject area to be tutored. Students sign up to request a tutor in the subject area desired. The student is assigned to a tutor by the tutor coordinator and meets with the tutor on a mutually agreed-upon schedule approved by Special Services. Such tutoring usually covers nine or more subject areas per semester. During exam week, group tutoring is provided.

Academic Advising--The Special Services staff act as academic advisors for first-year students in the Special Services program. Students meet with Special Services staff during pre-registration and registration periods and on an as-needed basis. Students believe this advising is very helpful in planning their programs of study.

Counseling--The program provides comprehensive counseling and referral services for students. These services include personal counseling, peer counseling, group dynamics, career exploration, and academic motivation. Staff provide advice about graduate school opportunities, as well as career possibilities. All services are available to assist students throughout their years of study at UNC-G.

Staff--The director has overall responsibility for the program--developing the proposals, allocating resources, supervising staff and relating to other parts of the University. She was involved with similar projects at other institutions before coming to UNC-G.

There is also a counselor, a writing specialist, a reading/study skills specialist, and a mathematics specialist. These individuals are automomous in their areas. All feel they have strong administrative support. In addition, there is a secretary and a tutor/coordinator. Subject matter tutors are upperclassmen or graduate students. With the exception of the graduate students, there is relatively little turnover among staff. The staff meet weekly to discuss the project and any problems that arise. In addition, there are a variety of staff training and staff development workshops throughout the year.

The staff with whom we talked appear very dedicated to the students. For example, the math instructor, who is employed for 20 hours a week, spends additional time outside of class working with students. There is a friendly, congenial atmosphere and students seem to feel comfortable about approaching staff and asking for help. Students do not feel stigmatized by being in this program, but rather they feel fortunate to have these services. Students are not indentified as Special Services students in regular classes, so faculty do not know which students are in the program. Thus, students remain part of the mainstream of academic life at UNC-G, while receiving the support needed to succeed in their courses. Faculty are aware of and supportive of the program and its good track record.

The Special Services Program has been very successful on the basis of studies conducted by the Office of Institutional Research. Special Services students who participate in the program have substantially higher retention rates than those who do not participate (see Table 2).

Student Retention Project

The Student Retention Project began in the fall of 1984. In looking at performance of Black freshmen, administrators found that many of these students were performing on the margin, though deemed "satisfactory performance." But, as these students progressed, they had to catch up in order to reach the required grade point for graduation. The University became concerned when studies indicated that many Black students had grade-point averages below 2.0. A special effort began last year to address this problem. It is coordinated by a member of the Admissions Office staff in cooperation with the Advising Office.

Table 2

First Year Retention Rates
Among Special Services Students
1983--New Freshmen

	% in Good Standing
Regular admits	82.7
Special admits	83.2
Special Services Admits with Active Participation in the Program	88.9
Special Services Admits with Non-participation	41.3

Source: Office of Institutional Research
University of North Carolina, Greensboro

The focus of this effort is to improve graduation rates. Blacks and Whites had similar four-year graduation rates over the past two years (see Table 3), yet the rate was below earlier levels and below administrative goals. The five-year graduation rate shows some yearly fluctuation, with the rate for Blacks exceeding that for Whites for two of the past four classes. Yet, for only one class (1977-81) did at least half of the entering Black freshmen graduate.

Table 3

Graduation Rates

Four-Year Graduation Rate

		1977-81 %	1978-82 %	1979-83 %	1980-84 %
Black:	Graduated	52	34	36	38
	Still Enrolled	13	19	22	18
White:	Graduated	43	40	37	37
	Still Enrolled	14	14	17	17

Five-Year Graduation Rate

		1976-81 %	1977-82 %	1978-83 %	1979-84 %
Black:	Graduated	48	63	46	49
	Still Enrolled	5	3	5	6
White:	Graduated	57	53	50	48
	Still Enrolled	3	3	5	5

Source: Office of Institutional Research
University of North Carolina, Greensboro

Services. The principal activities of the Student Retention Project are early identification of academic difficulties, special study skills development, and enhanced academic advising. In the beginning of the academic year a cohort of 333 potentially high risk Black and White freshmen students were selected for participation and selected faculty advisors were assigned to the participants and informed of the importance of increased contact. Each advisor set up preregistration meetings with the students. At mid-term, the project director contacted all faculty advisors and suggested that they hold a mid-term conference with students. Additionally, during spring semester registration students met with academic advisors. All unsatisfactory reports on students were sent to advisors, who promptly contacted students to discern why they were having difficulty and provide assistance early enough to reduce the likelihood of poor achievement by the end of the semester. The increased monitoring is designed to prevent students from getting into difficulty and to provide a support system for them. The program will operate along similar lines next year.

In addition to better advising, the project also holds a series of workshops on time management, test-taking, reading, and note-taking. This past year they were not well attended. Second semester workshops were held in the dorms and were somewhat better attended, but still below expectations. Students indicated that the most helpful workshop was the session on time management. The project director also provides personal support and counseling for students and refers them to appropriate University services.

Participants. Participants for the initial effort were 233 minority students and a sample of 100 non-minority students, who met regular admission requirements and were not eligible for Special Services. During the second semester this effort was opened up to all students. The goal is to have all undergraduate students participate in this program. Students with whom we spoke believe this advising is useful and the faculty helpful. They do not think of this effort as a special program.

Staff. The coordinator of the project is an assistant director of admissions and also a former student. It was initially her findings on Black student marginal performance that led to the formation of the project. She has two student assistants (volunteers) to help her. A steering committee consisting of faculty and the Dean of Academic Advising provide overall direction and, on occasion, manual labor--such as stuffing envelopes and sorting materials for mailing. There are also 14 student assistants who serve as peer counselors. Ninety-five faculty advisors provide the service to students. Those advisors who request student assistants to help track and locate students are assigned one.

This project (as well as Special Services) is under the jurisdiction of the Vice Chancellor for Academic Affairs, since the focus of the project is on enhancing academic performance. The Vice Chancellor for Academic Affairs emphasizes good advising and considers this an important responsibility of a professor. Heretofore, academic advising had not been given such importance.

The advisors had one orientation meeting, one luncheon at the end of the semester, and many written communications. Most advisors believe they have sufficient information to provide students with good advice. UNC-G has a centralized Academic Advising Office and the Retention Project will increasingly become a part of this function. The project coordinates activities with the Registrar's office to receive unsatisfactory reports and with the Student Affairs Office on issues of student life such as residence hall violations. The office also informs advisors about other services of the University to which students may be referred for non-academic problems. In the first year of operation more than half of the advisors attended the orientation meeting and more than three-fourths of the advisors met with all of their target students. Although it is too early to look at the impact of the program on student graduation,[2] the project has had an influence on the institution in terms of increased awareness of the importance of student advising and monitoring student progress. The project has been well received by faculty and administrators and has enlightened the entire campus about the retention issue. There is some information about the effectiveness of service. Survey results indicate that students find advisors to be most helpful in setting up a general course program, in discussing academic performance, and in identifying overall academic goals. The most frequently recommended change by faculty is to require students to meet with their advisors. One suggestion to accomplish this is to have registration cards mailed to advisors so that students would have to meet with them in order to register. But, the effectiveness of the program will develop as the students and faculty seek each other out regularly for advisement and guidance. Overall, faculty and administrators are pleased with the project and believe that it will enhance the quality of academic advising and eventually the graduation rate of UNC-G students.

Summary

UNC-G exemplifies a university that is making an institution-wide effort to increase minority retention. All aspects of the University--recruitment, admissions, financial aid, academics and student life--are important components of this effort. In addition, two special projects in Academic Affairs provide services to students to enhance their performance. The Retention Project concerns the improvement of academic advising and monitoring all students. The Special Services Program provides individual academic, financial and personal support services to students who are educationally and economically disadvantaged. Both services are under the auspices of Academic Affairs and have strong support throughout the university.

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[2] Institutional research is conducting an evaluation of the first year of the project, which includes extensive student and faculty surveys.